



**THE REGIONAL MUNICIPALITY OF NIAGARA
WASTE MANAGEMENT PLANNING
STEERING COMMITTEE
AGENDA**

WMPSC 1-2021

Monday, February 22, 2021

9:00 a.m.

Meeting will be held by electronic participation only

Due to efforts to contain the spread of COVID-19 and to protect all individuals, there is no public access to Niagara Region Headquarters. If you are interested in viewing this meeting or would like to speak to an item listed on the agenda please contact the Office of the Regional Clerk at clerk@niagararegion.ca at least 24 hours in advance of the meeting.

Pages

1. CALL TO ORDER

2. DISCLOSURES OF PECUNIARY INTEREST

3. SELECTION OF COMMITTEE CHAIR AND VICE-CHAIR

3.1. Call for Nominations for Committee Chair

3.2. Motion to Close Nominations for Committee Chair

3.3. Voting for the Position of Committee Chair

3.4. Call for Nominations for Committee Vice-Chair

3.5. Motion to Close Nominations for Committee Vice-Chair

3.6. Voting for the Position of Committee Vice-Chair

4. PRESENTATIONS

4.1. Overview of 2021 Divisional Initiatives

Catherine Habermehl, Director, Waste Management Services

4 - 24

5. DELEGATIONS

6. ITEMS FOR CONSIDERATION

- | | | |
|------|--|---------|
| 6.1. | <u>WMPSC-C 14-2021</u> | 25 - 39 |
| | Appointment of Citizen Members to the Waste Management Planning Steering Committee | |
| 6.2. | <u>WMPSC-C 16-2021</u> | 40 |
| | 2021 Waste Management Planning Steering Committee Meeting Dates | |

7. CONSENT ITEMS FOR INFORMATION

- | | | |
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| 7.1. | <u>WMPSC-C 1-2021</u> | 41 - 50 |
| | Councillor Information Request | |
| 7.2. | <u>WMPSC-C 2-2021</u> | 51 - 64 |
| | Alternative Waste Management Technologies Update | |
| 7.3. | <u>WMPSC-C 3-2021</u> | 65 - 70 |
| | Update on Blue Box Funding for 2021 | |
| 7.4. | <u>WMPSC-C 4-2021</u> | 71 - 73 |
| | Discontinuation of the Broken Container Exchange Program | |
| 7.5. | <u>WMPSC-C 5-2021</u> | 74 - 77 |
| | Humberstone Landfill Site Public Liaison Committee Meeting Minutes - April 3, 2019 | |
| 7.6. | <u>WMPSC-C 6-2021</u> | 78 - 81 |
| | Humberstone Landfill Site Public Liaison Committee Meeting Minutes - November 25, 2020 | |
| 7.7. | <u>WMPSC-C 7-2021</u> | 82 - 88 |
| | Mandatory Closed-Top Garbage Containers | |
| 7.8. | <u>WMPSC-C 8-2021</u> | 89 - 92 |
| | Information on Plastic Garbage Bags | |
| 7.9. | <u>WMPSC-C 9-2021</u> | 93 - 96 |
| | Waste Management Tipping Fees | |

7.10.	<u>WMPSC-C 10-2021</u>	97 - 102
	2020 Illegal Dumping Summary and 2021 Mitigation Measures	
7.11.	<u>WMPSC-C 11-2021</u>	103 - 118
	Anti-Litter Initiatives – Blue Box Lid	
7.12.	<u>WMPSC-C 13-2021</u>	119 - 124
	Recycling Centre and Market Update	

8. **OTHER BUSINESS**

9. **NEXT MEETING**

The next meeting date is to be determined.

10. **ADJOURNMENT**

If you require any accommodations for a disability in order to attend or participate in meetings or events, please contact the Accessibility Advisor at 905-980-6000 ext. 3252 (office), 289-929-8376 (cellphone) or accessibility@niagararegion.ca (email).

Waste Management Services Overview of 2021 Divisional Initiatives

Waste Management Planning Steering Committee

Monday, February 22, 2021

Catherine Habermebl, Director of Waste Management

Waste Management Services Overview of 2021 Divisional Initiatives

Waste Management Planning Steering Committee
February 22, 2021

Overview

Responsible for the planning, management and operations of waste management facilities, programs and services:

- Operation and maintenance of two Regional landfills, 12 closed landfills, the materials recycling facility (MRF), three household hazardous waste (HHW) depots, three waste and residential drop-off depots, and special diversion programs
- Management of private sector service contracts for collection services, organic composting and landfill disposal
- Capital program, asset management, and on-going environmental monitoring
- Enforcement, education and outreach programs

In addition to these core functions, 2021 divisional initiatives and areas of priority are highlighted in the following slides

Highlights of Completed Work in 2020

- Implementation of new curbside collection contracts
- Completion of public education campaign on service level changes
- Update to Waste Management By-Law
- Implementation of online sale of Blue/Grey Boxes/Bins/Carts and garbage tags
- Rollout of new online collection calendar and mobile app
- Finalized agreement for MRF Drum Feeders
- Completion of Phase 1 infrastructure upgrades at Humberstone Landfill, implementation of a SCADA system at closed landfills, and optimization of landfill monitoring programs
- Continued participation in extended producer responsibility transition consultations, ongoing reporting to Committees with recommendations

Tonnages Managed in 2020



- Processed 70,000 tonnes of material at Region's MRF (2020 draft tonnage)
- Composted 58,036 tonnes of residential organic waste (2020 draft tonnage)
- Disposed of 118,038 tonnes of waste (2020 draft tonnage)

Provincial Legislation

- Waste Management staff are actively involved in consultation, review and reporting on Provincial initiatives and legislation
- Ongoing divisional tasks related to this include:
 - Participation in consultation sessions with the Province, the Association of Municipalities of Ontario and other organizations;
 - Review and comment on proposed and final regulations;
 - Providing reports and presentations to Regional committees with recommendations, financial analysis and implications for the Region.
- Key current and upcoming legislation includes:
 - Producer responsibility model for the residential Blue Box Program
 - Proposed amendment to the Food and Organic Waste Policy Statement

Provincial Legislation: Blue Box Program

- Ontario is shifting to a full producer responsibility model for the residential Blue Box Program
- On October 19, 2020 the Province released a proposed new regulation under the *Resource Recovery and Circular Economy Act, 2016 (RRCEA)* to make producers responsible for collecting and managing the full life cycle of designated products and packaging
- The draft regulation defines a timeframe for transition, ensures a common collection system, designates materials to be collected, determines responsible producers and sets effective targets
- Under the draft regulation, Niagara Region has been identified to transition in 2024. A specific date within 2024 was not provided

Provincial Legislation: Blue Box Program

- Timelines for new Blue Box Regulation:
 - 2021 - Approval of Regulation
 - 2021 to 2022 – Stakeholders organize and prepare for producer responsibility
 - 2023 to 2025 – Producers take full responsibility from communities
 - 2021 to 2025 – Stewardship Ontario implements Blue Box Transition plan, each community continues to be 50% funded until they transition



Provincial Legislation: Food & Organic Waste

The Food and Organic Waste Framework , released by the Province in April of 2018 is comprised of two components:

- Part A: The Action Plan - outlines strategic commitments to be taken by the province to address food and organic waste. Proposed actions in the plan include a phased-in ban on food and organic waste from landfills starting in 2022
- Part B: The Policy Statement – provides direction to the Province, municipalities, the industrial, commercial and institutional (IC&I) sector, owners and operators of resource recovery systems and others to further the provincial interest in waste reduction and resource recovery as it relates to food and organic waste. It came into effect April 30, 2018, under the RRCEA.

Provincial Legislation: Potential Implications of Food & Organic Waste Framework for Niagara Region

- **Diversion Target:** Would be set at 70 per cent waste reduction and resource recovery of food and organic waste generated by low density residential dwellings by 2023
- **Landfill Ban:** Proposed phased-in ban on food and organic waste from landfills starting in 2022
- **New/Upgraded Processing Technology:** Requirements for municipalities to support pilot projects, research on processing compostable products, in addition to being encouraged to examine feasibility of updating existing processing technology
- **Materials List:** Municipalities encouraged to make waste reduction and resource recovery efforts for items not currently compatible with Region's composting technology and that do not breakdown in a typical municipal composting facility
- **Promotion and Education (P&E):** Province-wide P&E messaging through brand holder requirements, however variations among municipalities' processing systems

Provincial Legislation: Additional Transition Timelines

- Other waste diversion programs are transitioning to a producer responsibility model. Regulations that make producers fully responsible for these programs come into effect the same day the current programs end. These programs include:
 - **Municipal Hazardous or Special Waste (MHSW) Program**
 - Battery materials transitioned on July 1, 2020 and the remaining program materials will transition on July 1, 2021
 - Final regulation still to be released
 - **Waste Electrical and Electronic Equipment (WEEE) Program**
 - Transitioned to the producer responsibility model on January 1, 2021
 - Niagara Region to release tender in 2021 for operation of multi-residential WEEE and depot collection

Provincial Legislation: *COVID-19 Economic Recovery Act, 2020* (Bill 197)

- Enacted July 21, 2020, the legislation made substantial changes to the *Environmental Assessment Act* (EAA) including:
 - **Project List:** Environmental Assessments (EAs) now only apply to specific types of projects on a prescribed regulatory list. Landfills are included in the proposed list.
 - **Streamlined EAs:** Replacement of 10 currently approved Class EAs with streamlined EA process
 - **Limitation of ‘Bump-up’ Requests:** Restrict grounds upon which residents can request elevation of contentious projects from streamlined EA to comprehensive EA
 - **Municipal Approval for New Landfills:** Proponent of new landfills must obtain approval of the municipality in which the landfill is located and adjacent municipalities if within 3.5 km of municipal border

Provincial Legislation: *On-Site and Excess Soil Management Regulation, O. Reg. 406/19*

- This new regulation sets out procedures for the management of excess soil in Ontario, including soil chemical sampling, haulage tracking (truck manifesting), and acceptance at a receiving site such as a Landfill
- The regulation is being phased in:
 - The chemical standards for appropriate reuse of excess soil came into effect on January 1, 2021
 - The requirement for detailed plans for tracking the movement of soil via manifesting and then registering soil movement onto a Provincially designated web-based database comes into effect January 1, 2022
 - Clean soil will be restricted from acceptance at Landfill sites on January 1, 2025 unless the Landfill has a beneficial reuse for the clean soil

Strategic Projects - 2021

- Long Term Strategic Plan
 - An RFP for development of a Waste Management Long Term Strategic Plan will be released in 2021
 - The plan will establish a framework and strategic direction for waste management in Niagara Region over the next 25 years
- Peel Mixed Waste Processing Pilot
 - Participation on mixed waste processing pilot to range from supplying tonnage to receiving data results

Strategic Projects - 2021

- MRF Opportunity Review – Phase 4
 - Finalization and issuance of Negotiated Request for Proposals (NRFP) in the spring of 2021
 - To determine the best future opportunity for the MRF and minimize risk of a potentially devalued facility considering the transition of the residential Blue Box Program
- Organics Processing Requirements Analysis
 - Evaluate future processing needs (i.e. potential increased tonnage due to every-other-week garbage, proposed ban on organics in landfills)
 - Review options including potential expansion of Walker facility in 2022



Assessments - 2021

- Every-Other-Week Garbage Collection Diversion Analysis
 - Tonnage analysis (6 months and full year)
- Diaper Exemption Collection Analysis
 - Complete one year analysis of program use over winter and summer months



Program Performance Monitoring

- Multi-Residential Building Recycling Audits
 - Determine baseline contamination and diversion rate in multi-residential buildings and develop campaign plan to improve diversion
- CIF 2020-21 Curbside Waste Composition Study
 - Four season study of low density residential waste composition
- Regional Building Waste Audits
 - Regional Headquarters Building

Enforcement

- Illegal Dumping Working Group Initiatives
 - Continuation of issuing offences, increase reports and compliances
 - Explore opportunities to participate in provincial working group and other partnerships
 - Ongoing Illegal Dumping Enforcement Plan
- Litter Bin Blitz
 - Continuation of litter bin blitz in local area municipalities to reduce illegal dumping in litter receptacles



Outreach Campaigns - 2021

- Green Bin Campaign
- Illegal Dumping/Anti-Litter Campaign



Capital Projects - 2021

- Drop-off Depot Improvements at Bridge, Humberstone and NR-12
 - Improvements to increase customer service, functionality and efficiency
- Humberstone Infrastructure Upgrades
 - Completion of upgrades required in order to utilize the additional capacity
 - Detailed Design of Phase III of the LGCCS in accordance with ECA req'ts
- Glenridge Quarry Naturalization Site
 - Review and design of existing and new Passive Gas Venting System on east and south side of site
 - Design improvements to leachate collection system to reduce leachate mounding
- Mountain Road Leachate Collection System Upgrades
 - Design of upgrades to existing system to remove flow and improvement to reduce leachate mounding



Questions?

Subject: Appointment of Citizen Members to the Waste Management Planning Steering Committee

Report to: Waste Management Planning Steering Committee

Report date: Monday, February 22, 2021

Recommendations

1. That the Waste Management Advisory Committee (WMAC) **BE DISCONTINUED**, effective immediately;
2. For the remainder of this term of Regional Council, the past WMAC Chair and delegate **CONTINUE** as members of the Waste Management Planning Steering Committee (WMPSC);
3. For future terms of Regional Council, a formal application process for selecting two (2) citizen members to sit on the WMPSC, **BE USED**;
4. That the existing WMPSC's Terms of Reference **BE AMENDED** to include the following composition:
 - Maximum of 12 individuals, including: the Regional Chair, up to nine (9) Regional Councillors and two (2) citizen members.
5. That a complete update to the existing WMPSC's Terms of Reference **BE COMPLETED** by Niagara Region's Clerk's Department, in consultation with Waste Management staff.

Key Facts

- The purpose of this report is to respond to the Councillor Information Request made at the October 28, 2019 WMPSC meeting to provide information with respect to amending the WMPSC's Terms of Reference to include citizen members.
- Report WMPSC-C 35-2019 was submitted at the October 28, 2019 WMPSC meeting. It provided the recommendation to discontinue the WMAC, effective immediately. It also responded to the Councillor Information Request made at the August 26, 2019 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.
- Report WMPSC-C 35-2019 was deferred until the January 27, 2020 WMPSC meeting, in order to provide WMPSC members with additional information with respect to amending the WMPSC's Terms of Reference to include citizen members.
- Report WMPSC-C 35-2019 was amended to provide WMPSC members with additional information with respect to amending the WMPSC's Terms of Reference

to include citizen members. The amended report was submitted as WMPSC-C 11-2020 for the September 28, 2020 WMPSC meeting, however, quorum was not achieved.

- Subsequently, WMPSC-C 11-2020 was updated slightly and submitted as WMPSC-C 14-2021, for the February 22, 2021 WMPSC meeting.

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

An independent external governance review was conducted in 2018 (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 initial intent of the WMAC was to provide input on the development of 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.

Report WMPSC-C 35-2019 was submitted at the October 28, 2019 WMPSC meeting. It provided the recommendation to discontinue the WMAC, effective immediately. It also responded to the Councillor Information Request made at the August 26, 2019 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.

Report WMPSC-C 35-2019 was deferred until the January 27, 2020 WMPSC meeting, in order to provide WMPSC members with additional information with respect to amending the WMPSC's Terms of Reference to include citizen members.

Proposed Option for WMAC

On April 15, 2019, Niagara Region advertised for citizen members for all of its advisory Committees. Applications were taken over a two-week period. 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 A 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. Guelph, Halton, Hamilton, London, Ottawa, Peel, and Windsor) include a combination of Councillors and/or citizen members on their waste management advisory and/or standing committee.
- Five (5) comparator municipalities (i.e. Durham, Simcoe, Toronto, Waterloo, and York) do not have a waste management advisory and/or standing committee.

Options for Including Citizen Members on the WMPSC

In accordance with the current WMPSC's Terms of Reference, the WMAC Chair and another member designated by the WMAC sit as the only non-political members of the WMPSC. The 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. As a result, the Region is proposing that for this current term of Regional Council, the past WMAC Chair and delegate would continue to remain as members of the WMPSC.

For future terms of Regional Council, the Region will advertise for interested citizen members for the WMPSC, as part of its advertisement to fill vacancies on all Advisory Committees, in preparation of the new term of Regional Council. This process includes:

- An online application would be posted on Niagara Region's website for interested citizens to apply.
- Citizens would need to demonstrate why they would like to sit on the WMPSC, and include their relevant waste management experience.
- Staff reps for WMPSC, in consultation with the WMPSC Chair (and/or Vice Chair), would review all submissions and rank them, based on a best-fit criteria.
- Two (2) citizen members would be chosen and recommended to WMPSC members, for their approval.
- These two (2) citizen members would be submitted to PWC and Regional Council, for final appointment to the WMPSC.

Amendments to WMPSC's Existing Terms of Reference

The WMPSC is currently comprised of a maximum of 12 individuals, including the Regional Chair, nine (9) Regional Councillors, and two (2) representatives from the WMAC. The representatives of the WMAC do not have a vote on legal or financial matters.

If it is the WMPSC's intention to include two (2) citizen members on this Committee, the WMPSC's existing Terms of Reference would need to be amended to provide for these citizen members, along with the following criteria for their membership:

- Citizen members will not be present during closed sessions, or receive confidential information.

This amendment would be included, as part of a complete update to the existing WMPSC's Terms of Reference, which has not been amended since February 2002. This complete update would be undertaken by Niagara Region's Clerks Department, in consultation with Waste Management staff. Subject to WMPSC's final approval of the updated Terms of Reference, a PWC report would then be developed, for their approval.

Alternatives Reviewed

The alternative to discontinuing the WMAC would be to maintain it. This is not being recommended due to available opportunities to attend WMPSC and the already 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.

The alternative to including citizen members on the WMPSC would be to eliminate them from this Committee. This is not being recommended as there is a value in having the citizen members provide their insight to WMPSC, when making decisions on the planning and evaluation process for Waste Management programs, policies, etc.

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

WMPSC-C 35-2019 – Status of the Waste Management Advisory Committee
CLK 05-2019 - Recommendations from Independent External Governance Auditor –
First Report

Prepared by:

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

Recommended by:

Bruce Zvaniga, P.Eng.
Commissioner of Public Works (Interim)
Public Works Department

Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

This report was prepared in consultation with Ann-Marie Norio, Regional Clerk, and reviewed by Dan Ane, Manager Program Financial Support, and Lydia Torbicki, Manager Waste Policy & Planning, Waste Management Services Division.

Appendices

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

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

Municipality / Committee Name	Committee Mandate	Committee Composition
Durham Region (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable
Durham Region - Works Committee	<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 – Public Advisory Committee (PAC)	<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) citizen members appointed by Guelph City Council. • PAC members may not be employees of the City of Guelph or members of Council.
Guelph – Committee of the Whole	<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.

Municipality / Committee Name	Committee Mandate	Committee Composition
Halton Region - Solid Waste Management Advisory Committee (SWMAC)	<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; • 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"> • SWMAC is comprised of the following members: <ul style="list-style-type: none"> ○ Four (4) Councillors, one (1) 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 ○ One (1) member from Conservation Halton ○ One (1) member of Regional staff who performs the Environmental Inspector duties (advisory, non-voting)

Municipality / Committee Name	Committee Mandate	Committee Composition
Halton Region - Planning & Public Works Committee (PPWC)	<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 - Waste Management Advisory Committee (WMAC)	<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 (4) to five (5) members, as follows: <ul style="list-style-type: none"> ○ Up to three (3) members of City Council; ○ Two (2) citizen members.
Hamilton - Public Works Committee (PWC)	<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 - Advisory Committee on the Environment (ACE)	<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;

Municipality / Committee Name	Committee Mandate	Committee Composition
	<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. 	<ul style="list-style-type: none"> ○ One (1) representative of the Environmental and Ecological Planning Advisory Committee; ○ 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.

Municipality / Committee Name	Committee Mandate	Committee Composition
London - Planning and Environment Committee	<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 - Environmental Stewardship Advisory Committee (ESAC)	<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 area of environmental services, forests, greenspaces, parks, cycling and pedestrian issues; • 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. 	<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.

Municipality / Committee Name	Committee Mandate	Committee Composition
Ottawa - Standing Committee on Environmental Protection, Water and Waste Management (SCEPWWM)	<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 (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable
Peel Region - Waste Management Strategic Advisory Committee (WMSAC)	<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"> • WMSAC is comprised of members of Council only.

Municipality / Committee Name	Committee Mandate	Committee Composition
Simcoe County (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable
Simcoe County - Committee of the Whole (COTW)	<ul style="list-style-type: none"> • Reports directly to County Council. • Within COTW, there are three (3) sections: <ol style="list-style-type: none"> 1. Performance Management, 2. Human Services, and 3. Corporate Services 	<ul style="list-style-type: none"> • COTW is comprised of members of Council only.
Toronto (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable
Toronto - Infrastructure and Environment Committee (IEC)	<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 (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable

Municipality / Committee Name	Committee Mandate	Committee Composition
Waterloo Region - Planning and Works Committee (PWC)	<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 (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> Not Applicable
Windsor - Environment, Transportation and Public Safety Standing Committee (ETPSSC)	<ul style="list-style-type: none"> Study and report to Council on all matters relating to the following: <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. 	<ul style="list-style-type: none"> ETPSSC is comprised of five (5) members of Council only.

Municipality / Committee Name	Committee Mandate	Committee Composition
York Region (does not have a specific Waste Management Advisory Committee)	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • Not Applicable
York Region - Committee of the Whole (COTW)	<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 as EFW (i.e. Durham).

MEMORANDUM

WMPSC-C 16-2021

Subject: 2021 Waste Management Planning Steering Committee Meeting Dates

Date: February 22, 2021

To: Waste Management Planning Steering Committee

From: Ann-Marie Norio, Regional Clerk

The following is a list of proposed dates in 2021 that have been identified to hold meetings of the Waste Management Planning Steering Committee:

April 19, 2021

June 28, 2021

August 30, 2021

October 18, 2021

December 13, 2021

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 2021:

April 19, June 28, August 30, October 18, December 13.

Respectfully submitted and signed by

Ann-Marie Norio
Regional Clerk

MEMORANDUM

WMPSC-C 1-2021

Subject: Councillor Information Request

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Catherine Habermebl, Director, Waste Management Services

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: October 28, 2019

Minute Item #3.1:

Provide information respecting the tonnage of plastic garbage bags being collected by Niagara Region each year, and ways to mitigate usage. Councillor Gibson.

Follow-up Action: Information was submitted to Waste Management Planning Steering Committee for the January 27, 2020 meeting, which was cancelled due to a lack of quorum. Subsequently, WMPSC-C 4-2020 was provided for the September 28, 2020 meeting, which again had a lack of quorum. WMPSC-C 4-2020 was updated slightly and is included on the February 22, 2021 WMPSC meeting agenda as WMPSC-C 8-2021.

Status: Complete

Provide information respecting the definitions of diapers and incontinence products and what differentiates the two waste categories. Councillor Diodati.

Follow-up Action: Niagara Region offers exemptions to the current garbage container limits. Diaper waste and waste generated as a result of a medical condition each require a different type of exemption. The diaper exemption is applicable to households with two or more children under the age of four in diapers. For individuals with a medical condition, which results in the generation of waste including incontinence products, a medical exemption is required to exceed the current garbage container limit.

Below is a summary of the current garbage container exemptions:

Diaper Exemption

1. Low-density residential properties (up to 6 units) with two (2) or more children under the age of 4 in diapers may place out one (1) clear bag of diapers per unit for weekly collection, in addition to the one bag weekly limit of household garbage.
2. Low-density residential properties (up to 6 units) with three (3) or more children under the age of 4 in diapers may place out two (2) clear bags of diapers per unit for weekly collection, in addition to the one bag weekly limit of household garbage.
3. Daycares operating out of low-density residential properties may place two (2) clear bags of diapers out for collection weekly, in addition to the one bag weekly limit of household garbage.

Medical Exemption

1. An individual with a medical condition, which results in the generation of additional garbage (i.e. incontinence products, dialysis bags, non-hazardous medical waste), may apply with a doctor's signature, to receive one or two extra bags each week, based on the doctor's discretion, in addition to the one bag weekly limit of household garbage. This results in the provision of either 52 or 104 free garbage tags annually.

Group Home Exemption

1. Group homes, homes for adults with disabilities and homes for assisted living will receive 52 free garbage tags annually. If the home has one or more individuals with a medical condition, a medical exemption is also provided with the group home as the signing authority in place of the physician.

Status: Complete

Minute Item #5.1:

Provide information respecting amending the Waste Management Planning Steering Committee Terms of Reference to include citizen members. Councillor Witteveen.

Follow-up Action: Proposed amendments to the Waste Management Planning Steering Committee Terms of Reference were submitted to Waste Management Planning Steering Committee for the January 27, 2020 meeting, which was cancelled due to a lack of quorum. Subsequently report WMPSC-C 11-2020 was provided for the September 28, 2020 meeting which again had a lack of quorum. WMPSC-C 11-2020 was updated slightly and is included on the February 22, 2021 WMPSC meeting agenda as WMPSC-C 14-2021.

Status: Complete

Minute Item #7.1:

Councillor Ugulini requested information respecting enforcement of illegal dumping mitigation measures in consideration of the move to every-other-week waste collection.

Follow-up Action: Memorandum WMPSC-C 9-2020 was submitted to Waste Management Planning Steering Committee at the January 27, 2020 meeting, which was cancelled due to a lack of quorum. Subsequently, PWC-C 30-2020 was provided for the September 8, 2020 Public Works Committee meeting.

Status: Complete

Minute Item #7.2:

Councillor Ugulini requested information respecting the implementation of mandatory closed top waste collection containers across the Region.

Follow-up Action: Information was submitted to Waste Management Planning Steering Committee for the January 27, 2020 meeting, which was cancelled due to a lack of quorum. Subsequently, WMPSC-C 5-2020 is provided for the September 28, 2020 meeting which again had a lack of quorum. WMPSC-C 5-2020 was updated slightly and is included on the February 22, 2021 WMPSC meeting agenda as WMPSC-C 7-2021.

Status: Complete

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: Information was submitted to Waste Management Planning Steering Committee for the January 27, 2020 meeting, which was cancelled due to a lack of quorum. Due to the pandemic, the redeployment of staff and implementation of the new collection contracts, this work was paused. This work is being reinitiated and staff will report back with an update when available.

Status: In progress

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: In order to proceed with this project, the options to be included in the RFP were submitted to Public Works Committee in a presentation by the project consultant and in Confidential Report PW 17-2020 A Matter of Commercial Information, which if disclosed could reasonably be expected to prejudice significantly the competitive position or interfere significantly with the contractual or other negotiations of a person, group of persons, or organization, under s. 239(2) of the Municipal Act, 2001 - Procurement Process for MRF Opportunity Review – Phase 4. This report was approved by Public Works Committee on June 16, 2020 and by Council on June 25, 2020.

Status: Complete

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. Direction for the next major steps in the evaluation were contained in Confidential Report PW 17-2020. The project consultant is in the process of developing the terms of reference for the Negotiated Request for Proposal, with a targeted release in March 2021.

Status: In progress

Public Works Committee

Meeting Date: October 13, 2020

Minute Item #3.1

Provide information respecting the Niagara Region Waste App's ability to track real-time collection vehicle movement in the future. Councillor Diodati

Follow-Up Action: Information was provided in CWCD 2021-13 which was submitted as part of the January 15, 2021 Council correspondence.

Status: Complete

Meeting Date: September 8, 2020

Minute Item #3.1

Provide information respecting the staff costs(s) associated with the Waste info-Line.
Councillor Gale.

Follow-Up Action: Information was provided in CWCD 250-2020 which was submitted as part of the September 18, 2020 Council correspondence.

Status: Complete

Minute Item #5.3

Provide information respecting the cost of Niagara Recycling's scale operations.
Councillor Gale

Follow-Up Action: Information was provided in CWCD 250-2020 which was submitted as part of the September 18, 2020 Council correspondence.

Status: Complete

Provide information respecting the annual value of the Niagara Recycling contract.
Councillor Gale

Follow-Up Action: Information was provided in CWCD 250-2020 which was submitted as part of the September 18, 2020 Council correspondence.

Status: Complete

Provide a copy of the most recent financial audit/report on Niagara Recycling. Councillor Gale.

Follow-Up Action: Information was provided in CWCD 250-2020 which was submitted as part of the September 18, 2020 Council correspondence.

Status: Complete

Meeting Date: May 12, 2020

Minute Item #5.1

Provide information respecting whether or not the contract with Walker Environmental Group is an exclusive contract. Councillor Nicholson.

Follow-up Action: The contract does preclude the Region from dealing with another contractor in addition to Walker Environmental Group.

Status: Complete

Minute Item #6.2:

Ensure information is provided to residents registered for weekly diaper collection respecting alternative diaper solutions (i.e. cloth diapers) with a roster of providers. Councillor Sendzik.

Follow-up Action: Information on cloth diaper pickup and washing service providers in Niagara has been included on the Regional website. The Customer Service Frequently Asked Questions for the new waste collection changes beginning on October 19, 2020 also addresses cloth diapers and includes additional retail locations as to where cloth diapers can be purchased.

Status: Complete

Meeting Date: March 10, 2020

Minute Item #3.2: MOTION

That the engagement of an outside independent waste management consultant **BE APPROVED** To:

- Review the current practices related to garbage collection and recycling/recycling materials recovery facility; and
- To make recommendations on how the system can be made more cost effective and efficient for the taxpayer.

Follow-up Action: Work was initiated in 2020, however due to the pandemic, the redeployment of staff and implementation of the new collection contracts, this project was paused. This work is anticipated to be completed in the spring of 2021.

Status: In progress

That staff **BE DIRECTED** to take the results of the review and work with the newly awarded companies and the operators of the material recovery facility to implement the suggestions over the term of the contract subject to Regional Council approval.

Follow-up Action: The review is in progress and the resulting recommendations will be submitted to Public Works Committee for approval.

Status: In progress

That a plan to deal with illegal dumping that could arise as a result of bi-weekly pick-up **BE DEVELOPED** and **IMPLEMENTED**.

Follow-up Action: Report PWC-C 30-2020 was submitted to Public Works Committee at the September 8, 2020 meeting.

Status: Complete

That a plan to deal with public health problems that could arise as a result of moving to bi-weekly pick-up **BE DEVELOPED** and **IMPLEMENTED**.

Follow-up Action: Report PWC-C 25-2020 was submitted to Public Works Committee at the September 8, 2020 meeting.

Status: Complete

Provide information respecting the cost of an independent waste management consultant. Councillor Chiocchio.

Follow-up Action: Due to the pandemic, the redeployment of staff and implementation of the new collection contracts, this project was paused. This work is being reinitiated and staff will report back with this information when available.

Status: In progress

Meeting Date: Feb 11, 2020

Minute Item #7.1

Councillor Disero requested staff provide a report respecting weekly diaper collection for families regardless of the number of children. R. Tripp, Commissioner, Public Works/Acting Chief Administrative Officer, advised staff would provide a report at the Public Works Committee meeting being held on April 7, 2020.

Follow-up Action: Report PW 20-2020 was submitted to Public Works Committee at the May 12, 2020 meeting as the April meeting was cancelled.

Status: Complete

Meeting Date: November 5, 2019

Minute Item #3.1

Provide information respecting the number of waste containers distributed to residents from May 2018 to November 2019. Councillor Insinna

Follow-up Action: The container unit numbers that were sold at various events and that Niagara Region delivered to the container distribution locations between May 2018 and November 2019 are as follows:

Container Type	Unit Number
1. Blue Box	15,080
2. Grey Box	15,578
3. Green Bin	10,961
4. Kitchen Catchers	6,258

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: August 26, 2019

Minute Item #3.2:

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

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: 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.

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.

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)

Respectfully submitted and signed by

Catherine Habermehl
Director, Waste Management Services

MEMORANDUM**WMPSC-C 2-2021****Subject: Alternative Waste Management Technologies Update****Date: Monday, February 22, 2021****To: Waste Management Planning Steering Committee****From: Brad Whitelaw, Program Manager, Policy & 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 (EFW), Mixed Waste Processing (MWP), Anaerobic Digestion (AD), 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.

Background

- Originally, as part of Niagara Region's Long Term Waste Management Strategic Plan (LTWMSP), and then subsequently as a stand-alone project, Council approved completion of a review and issuance of a Request For Proposal (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. It would instead be included, as part of a future LTWMSP, with a comprehensive stakeholder engagement process.
- An RFP for the completion of a future LTWMSP will be released in early 2021.

- 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 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 34-2019 – Alternative Waste Management Technologies Update, October 28, 2019.

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)

Municipality/ Facility	Type of Technology	Update
Durham-York Energy Centre (DYEC) and Covanta	EFW	<ul style="list-style-type: none"> • Covanta designed, built, operates and maintains the DYEC, on a 20-year contract term, plus optional term extensions of up to 10 years. • 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

Municipality/ Facility	Type of Technology	Update
		<p>rate is approximately 67,200 kilograms per hour.</p> <ul style="list-style-type: none"> • 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. • A streamlined Environmental Assessment to increase the DYEC permitted capacity from 140,000 to 160,000 tpy will be submitted spring 2021, for approval. • The gross capital costs for the DYEC project amount to \$284.2 million; this includes \$255 million for construction of the facility and approximately \$29 million for the Environmental Assessment, permitting and approvals, site servicing, consulting fees and economic development activities in the host community of Clarington. • The 2019 estimated annual operating costs were approximately \$16.8 million. This cost is shared between Durham and York Regions, based on the quantity of waste each Region delivers to the DYEC. • The operating costs are funded through the revenue generated from the sale of electricity (\$8.7M), sale of recovered metals (\$488K), and the Solid Waste Management budget.
Metro Vancouver Waste-to-Energy (WTEF) and Covanta	EFW	<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. • Since their organics ban was introduced in January 1, 2015, the Mixed Solid Waste

Municipality/ Facility	Type of Technology	Update
		<p>(MSW) processed at the WTEF has decreased from 280,000 tpy to approximately 253,000 tpy in 2019.</p> <ul style="list-style-type: none"> • In 2019, the WTEF recovered and sold approximately 6,000 tonnes of ferrous and non-ferrous metals. This also provides secondary ferrous metal recovery (i.e. aluminum, zinc, brass, stainless steel, and copper). • In 2019, the total operating cost for the WTEF was approximately \$20.5 million. 2019 disposal costs were \$2.0 million. • In 2019, Metro Vancouver earned approximately \$5.8 million in revenue from the sale of electricity, and \$0.2 million from the sale of recycled metals, the bulk of which was used to produce reinforcing steel. • The WTEF generates enough electricity to power 16,000 homes per year. • In 2019, the net cost to operate the WTEF was \$57.45 per tonne.
Halifax Regional Municipality Otter Lake Waste Management Facility	Mechanical Biological Treatment (MBT)	<ul style="list-style-type: none"> • From April 2019 to March 2020, the Otter Lake Facility received a total of 46,125 tonnes of residential waste, of which 39,947 tonnes was landfilled (difference in tonnage excludes metals, papers and pop bottles, which were recovered). • Total operating costs for the MBT Facility during this period were \$6.0 million.
City of Toronto Dufferin Biogas Utilization Project	AD	<ul style="list-style-type: none"> • The City of Toronto, in collaboration with Enbridge Gas Inc. (Enbridge), is installing biogas upgrading equipment at the Dufferin Solid Waste Management Facility.

Municipality/ Facility	Type of Technology	Update
		<ul style="list-style-type: none"> • The infrastructure will allow the City and Enbridge to convert the biogas that is produced from processing Toronto's Green Bin organic waste into renewable natural gas (RNG) and inject this gas into the natural gas distribution grid owned and operated by Enbridge. • Once in the grid, the City can use the low-carbon fuel to power its waste collection trucks and other vehicles and/or heat City buildings and facilities. • This project is one of the first of its kind in North America and will allow the City to significantly reduce its greenhouse gas (GHG) emissions. • Current estimates suggest that the Dufferin RNG facility will process 55,000 tonnes of organics per year, and produce approximately 3.3 million cubic metres of RNG per year. • The first green molecule of RNG is expected to flow by late 2020. • The total project cost for the Dufferin Biogas Facility is estimated to be \$16.3 million. • The next facility to receive RNG infrastructure will be the Disco Road Organics Processing Facility. • The City has also identified other potential RNG production opportunities, for consideration, at two of its landfill sites (Green Lane and Keele Valley). • Through these four sites, it's estimated that the City could produce approximately 65 million cubic metres of RNG per year – the

Municipality/ Facility	Type of Technology	Update
		equivalent in GHG emission reductions of taking 35,000 cars off the road for a year.

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

a) Current P3 Facilities

Municipality/Facility	Type of Technology	Update
City of Edmonton and Enkern 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"> Edmonton's Waste to Biofuels and Chemicals Facility is the world's first commercial-scale waste-to-biofuels facility of its kind and is designed to turn household garbage into biofuels and renewable chemicals. The facility is built, owned and operated by Enkern Alberta. Using Enkern's proprietary technology, it aims to convert 100,000 tonnes of municipal solid waste into 38 million litres of biofuel annually to help Alberta reduce its GHG emissions. After initially producing just methanol, the facility installed a new process to produce ethanol in 2017. The goal of producing methanol and subsequently ethanol has economic and environmental benefits. The annual cost to operate the Enkern facility is proprietary information.

b) Proposed P3 Facilities

Municipality	Type of Technology	Update
Durham Region	MWP and 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. • In May 2020, Council gave approval to continue negotiation of a joint venture/co-ownership agreement with Epcor Utilities Inc. for the development of the Region's Mixed Waste Pre-Sort and AD facility. • The Request For Quotation (RFQ) closed December 1, 2020. • In 2021, Durham will be reviewing RFQ submissions and issuing the RFP in the fall. • The Mixed Waste Pre-sort AD facility with an EFW plant, will be a first-of-its-kind, fully integrated waste management initiative in North America. • This system will convert food scraps into RNG and will use the residuals to generate electrical energy that can be used in a variety of applications. • The proposed AD process will be odour and emissions free, due to the facility operating under negative pressure and using bio-filters to remove the odour causing components. • The AD facility is anticipated to divert approximately 30,000 tonnes of organics from the DYEC, annually.

Municipality	Type of Technology	Update
		<ul style="list-style-type: none"> The upfront capital costs to build both facilities, including land, are estimated to be approximately \$164 million.

Table 3 – Summary of Privately-Owned Facilities

Facility	Type of Technology	Update
Escarpment Renewables Bio Digester, Grimsby	AD	<ul style="list-style-type: none"> In September 2019, the former Grimsby Energy Inc. Bio Digester facility was sold to White Owl Ltd., a privately-owned company based in Markham. White Owl Ltd. is the holding (parent) company of Miller Waste Systems Inc. and Escarpment Renewables. Miller Waste Systems Inc. provides feedstock, engineering and operational support to Escarpment Renewables. The facility processes food waste and various liquid waste feedstocks, such as sugar waters, fats, oils and grease (FOG), and dissolved air flotation (DAF) sludge. The current annual tonnage is 23,000 MT, and the facility utilizes two continuous stirred-tank reactor (CSTR) digesters, each with a volume of approximately 2,000m³. As it is in the commissioning phases of facility upgrades, a processing fee is not available. The facility has the ability to generate up to 1.0MW of electricity using the biogas that is produced.

Facility	Type of Technology	Update
Southern Alberta Energy from Waste Association (SAEWA)	EFW	<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 Its mission is to research and implement energy recovery from non-recyclable waste materials in order to reduce long-term reliance on landfills. In 2019, SAEWA received 11 Expressions of Interest (EOI) to compete to host an EFW Facility. After an extensive scientific process of review & analysis of the potential sites, a preferred site was successfully selected in co-location of the Newell County Landfill. SAEWA are receiving business proposals coming forward wanting to work with them to see the project concept come to commercialization.

Municipal 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. Due to COVID-19, the Working Group did not meet in 2020.

Provided below is an update from the Municipal MWP Working Group members on their current initiatives:

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 and Auditing
- 3) Resource and Waste Management Knowledge Exchange
- 4) Technology Demonstrations
- 5) Outreach and Engagement

- In late October 2019, London launched their Hefty Energy Bag Pilot Project at 6,800 homes, in five areas of the City. The purpose of the project was to:

- 1) Divert more plastics from landfill (i.e. juice & food pouches, chip & snack bags, meat & cheese bags, pet food bags, fruit/vegetable bags, etc.)
- 2) Reduce the amount of plastic being mismanaged
- 3) Advance towards a more circular plastics economy and more sustainable future

- Due to COVID-19, this pilot was delayed from March 2020 until October 2020. It re-started in October 2020, and will be completed in September 2021. The pilot was also re-launched in smaller, more manageable areas.

ii) **Oxford County:**

- In 2021, Oxford County will be starting high level planning for organics diversion (i.e. Source-Separated Organics vs. Facility-Separated Organics) in order to meet the 2025 targets established in the Provincial organics policy statement.

iii) **Peel Region:**

- The RFP process is underway for an AD facility to process Peel Region's Green Bin organics.

- The DBOM contract will be awarded in 2021, and the AD facility should be operational by 2024.
- On June 18, 2020, Peel Region's Waste Management Strategic Advisory Committee (WMSAC) directed staff to report back with information on how a MWP Pilot fits into the Region's long-term waste management strategy, including timing, scope, costs, risks, outcomes, and options for procurement.
- Peel Region prepared a REOI for a MWP Pilot Project, which was released on December 24, 2020, and closes on January 29, 2021.
- Peel Region staff reached out to other municipalities to discuss potential partnering opportunities.
- In November 2020, Peel Region staff invited municipalities to attend a meeting, which described Peel's MWP Pilot Project. Niagara Region staff participated in this meeting.
- Niagara Region contacted Peel Region staff in mid-January to express Niagara's potential interest in participating in the MWP Pilot Project.
- Although Niagara's level of participation is still to be determined, it may potentially include supplying material and/or receiving pilot data results. Further details will be identified over the next several months.
- Peel Region staff will report back to the WMSAC with their findings and recommendations pertaining to project timing, scope, costs, risks, outcomes, and options for procurement of a MWP pilot.

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.
- Simcoe 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.
- Simcoe County has selected a site and are currently pursuing the necessary Official Plan and zoning designations.

v) Toronto:

- Solid Waste Management Services staff took a report to their Infrastructure and Environment Committee in March 2020, outlining the findings of their MWP Study to date.

- As a result, the scope of study was expanded to include MWP with thermal processing. To date, waste characterization audits, waste forecasting and a jurisdictional scan have been conducted.
- Solid Waste Management Services staff will continue to research the topic and have committed to report back with updated findings to Toronto City Council by the end of 2023.

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:**

- By approving their 2020 Update to the SM4RT Living Plan, York Council endorsed the recommended strategy of transitioning to AD through procurement of 20-year contracts at privately-owned processing facilities.
- York Region is currently in the process of developing the RFP to procure these contracted processing services. The timeline for releasing the RFP has been extended due to COVID-19. York Region is currently aiming to issue the RFP by April 1, 2021.

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 Niagara Regional Committees/Council, in terms of services and facilities that Niagara will continue to operate under a producer responsibility framework.

Provincial “Made-in-Ontario Environment Plan” (Plan) Update:

- On October 19, 2020, the Province released a proposed new Blue Box regulation under the Resource Recovery and Circular Economy Act (RRCEA), for comment.
- Under the proposed regulation, the producer shall establish a collection and management system of designated materials and producers may be interested in having municipalities provide Blue Box services on their behalf, should mutually agreeable terms be negotiated.

- Under the proposed regulation, recovered resources that are used in incineration or used in a product that is fuel or a fuel supplement are not accounted for, or reported on, in respect of a producer's management requirement (i.e. the total amount of Blue Box materials producers must divert) for a material category.
- Niagara Region provided comments on the proposed new regulation, for submission to the Ministry of Environment, Conservation and Parks (MECP), as part of PW 48-2020, November 10, 2020.
- Staff will continue to provide reports to Committee with further updates on the proposed legislative changes.

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

- On September 30, 2020, the Province posted the proposed amendments to the Policy Statement on the Environmental Registry of Ontario, for a 45 day public review period, which ended on November 14, 2020.
- Niagara Region generally supported these proposed amendments, which were included in PWC-C 43-2020, November 10, 2020.
- Additional guidance will be provided by the Province to municipalities in the coming months regarding implementation of the Policy Statement.

Summary/Conclusions

Based on a review of the Municipal MWP Working Group members, the majority are not considering EFW, at this time, for various reasons, including:

- A decision was made to monitor EFW, but not to implement at this time (Waterloo, Simcoe);
- The EFW technology was not included, as part of their long-term waste strategy (London);
- The decision was made to focus on organics (AD) diversion (Durham, Oxford, Simcoe, Peel and York).
- Toronto will be including MWP with thermal processing, as part of their MWP Study, which is expected to be completed by the end of 2023.

Niagara Region will be assessing EFW, as part of its upcoming LTWMSP.

Respectfully submitted and signed by

Brad Whitelaw, BA, CIM, CPM, P.Mgr., CAPM
Program Manager, Policy & Planning

MEMORANDUM

WMPSC-C 3-2021

Subject: Update on Blue Box Funding for 2021

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Brad Whitelaw, Program Manager, Waste Policy & Planning

The purpose of this memorandum is to provide Waste Management Planning Steering Committee (WMPSC) members with an update on Niagara Region's 2021 Stewardship Ontario (SO) Blue Box funding and how it is determined, as well as an update on the status of the Province's Blue Box regulation and producer responsibility.

Background

- “The Resource Productivity Recovery Authority (RPR) Blue Box Datacall is the source of data used by RPR in calculating the net residential Blue Box cost and for determining the annual SO funding to be allocated under the Blue Box Program Plan.
- Each Ontario program (i.e. municipality, recycling association, or First Nation) providing recycling services must complete the annual RPR Datacall to be eligible to receive SO funding for their Blue Box program.
- SO is the not-for-profit, industry funding organization (IFO) that operates Ontario's Blue Box program on behalf of industry stewards (i.e. first importers, brand owners or franchisors) of packaging and printed paper that end up in residential Blue Boxes.
- Industry stewards pay fees to SO to enable it to fulfill its funding and operational obligations. These steward fees are based on the amount of packaging and printed paper they supply annually into the Ontario residential market.
- SO operates the Blue Box and Orange Drop programs under the authority of *The Waste-Free Ontario Act, 2016*.
- SO is accountable to RPR, which is the oversight, compliance, and enforcement organization.”

Overview

Every year, Ontario programs must complete the RPRA Blue Box Datacall, which is based on their previous year's program information, in order to be eligible to receive SO funding. Ontario programs must submit their Blue Box Datacall into RPRA by the end of April of each year. All Datacall submissions are then reviewed by RPRA, as part of their data verification process. Once all of the data has been verified, RPRA sets the steward obligation, which is submitted to the RPRA Board, for approval.

As part of RPRA's oversight of the Blue Box program, RPRA determines the total amount that Blue Box industry stewards must pay each year to Ontario programs to operate their program. RPRA also calculates how much funding each participating Ontario program is eligible to receive from SO, based on the information they provide as part of their annual Datacall submission.

"To determine the SO funding obligation each year, RPRA considers information obtained from the annual Datacall. In addition, the following factors are considered:

- Municipal cost containment to reflect best practices in operating municipal waste diversion programs
- Steward cost containment to represent cost increases stewards have had on the system due to their packaging and product choices
- InKind lineage to reflect the share of promotion and education through newspapers using InKind lineage attributable to the Blue Box program
- Non-obligated materials to reflect a portion of the costs to collect materials through the Blue Box program that are not mandated
- Three-year rolling average revenue to reflect volatile commodity prices
- Prior year adjustments to reflect any errors identified by the RPRA in verifying and auditing Datacall information."

"RPRA uses the Municipal Funding Allocation Model (MFAM) to determine how the Annual Steward Obligation is to be distributed among the participating Ontario programs. The MFAM was established as a way to differentiate funding levels between Ontario Blue Box programs, with the intent being that the more efficient and effective programs would receive greater financial incentives.

The MFAM has been a subject of discussion numerous times, as it re-distributes steward obligation, based on the criteria of costs, tonnage and best practice questions, as follows:

- Net Residential Blue Box System Cost (50%)
- Recovered Tonnage (35%), and
- Best Practices (15%) score”

Summary of Niagara Region’s SO Funding

An Ontario program’s SO funding amount received in any current year is based on their Datacall’s net residential Blue Box cost from two years ago. For example, the SO funding that an Ontario program receives in 2021 will be determined, based on their 2019 net residential Blue Box cost, which was calculated as part of their 2020 RPRA Datacall submission.

In 2021, SO funding payments made to all Ontario programs range from a low of 3% to a high of 75%, with an average of 39% of their 2019 net residential Blue Box cost. SO funding payments made to Niagara’s 11 municipal comparators average 50% of their 2019 net residential Blue Box cost.

Table 1 below provides a summary of Niagara Region’s SO funding that was received between 2017 and 2021.

Table 1 - Summary of Niagara Region's 2017- 2021 Stewardship Ontario Funding and Net Residential Blue Box Costs

SO Funding Year	SO Funding Received	Net Residential Blue Box Program Cost	SO Funding as % of Net Residential Blue Box Cost
2017	\$3,925,713	\$7,589,776	51.72%
2018	\$4,028,353	\$6,949,396	57.97%
2019	\$3,711,276	\$5,415,186	68.53%
2020	\$4,412,428	\$7,941,830	55.56%

SO Funding Year	SO Funding Received	Net Residential Blue Box Program Cost	SO Funding as % of Net Residential Blue Box Cost
2021	\$5,647,496	\$10,159,441	55.59%

Comparison of Niagara Region's 2021 Budget vs. SO Funding

Table 2 below provides a comparison of Niagara Region's 2021 Budget versus the SO funding amount that will be received.

Table 2 - Comparison of Niagara Region's 2021 Budget vs. SO Funding

2021 Budget	2021 SO Funding	2021 Budget vs. SO Funding Variance
\$5,689,300	\$5,647,496	(\$41,804)

As part of the 2021 Budget, total 2021 Blue Box funding from SO was estimated at \$5,689,300, based on historical trends of funding received as a percentage of net residential blue box costs over the past several years. Niagara Region has received a confirmed 2021 funding announcement of \$5,647,496, which will result in an unfavourable budget variance of \$41,804.

Status of Blue Box Regulation and Producer Responsibility

A report was submitted to Public Works Committee on the proposed producer responsibility regulation, as part of PW 48-2020, November 10, 2020. In addition, a report was submitted on SO's proposed plan to windup the residential Blue Box program and transition to the new producer responsibility framework, as part of PWC-C 42-2020, November 10, 2020.

1. Blue Box Regulation:

"Under the *Resource Recovery Circular Economy Act* (RRCEA), the Province is shifting to a full producer responsibility framework for products, packaging, and packaging-like products, making producers and brand holders accountable for recovering resources and reducing waste associated with products.

On October 19, 2020, the Province released a proposed new regulation under the RRCEA and amendments to the Regulation 101/94 to the Environmental Registry of Ontario (ERO) for a 45 day comment period. Under the proposed Blue Box regulation, the producer shall establish a collection and management system of designated materials and producers may be interested in having municipalities provide Blue Box services on their behalf, should mutually agreeable terms be negotiated.”

Niagara Region provided its comments on the proposed Blue Box regulation to the Ministry of Environment, Conservation and Parks (MECP) on December 3, 2020.

2. Producer Responsibility:

“In the summer of 2019, the MECP issued direction to SO to develop a plan to transition the current Blue Box program, which is a shared cost model (50% funded by producers and 50% funded by municipalities) to the new individual producer responsibility framework (funded 100% by producers). The plan was to be submitted to RPRA by the August 31, 2020 deadline, which was extended from June 30, 2020 due to the COVID-19 pandemic.

SO submitted the Blue Box Program Transition and Stewardship Ontario Windup Plan (the Plan) to RPRA and as per the Ministers direction, RPRA is required to review, consult and approve the plan. RPRA has consulted with stakeholders via a series of webinars and group discussions that were held from October 13 to 23, 2020. Stakeholder comments on the Plan were required by November 10, 2020.”

Niagara Region provided its comments to RPRA regarding SO’s proposed plan to windup the residential Blue Box program and transition it to the new individual producer responsibility framework on November 10, 2020.

“On December 16, 2020, RPRA (the Authority) approved SO’s Blue Box Program Transition and Wind-Up Plan, with the following six conditions:

1. Prior to the implementation of the Material Cost Differentiation (MCD) methodology, SO is required to:
 - a) develop a proposal, to the Authority’s satisfaction, to further mitigate the increase of InKind funding to municipalities and First Nation communities as a result of the adoption of the methodology until the program winds up

- b) develop a plan, to the Authority's satisfaction, to address stakeholder concerns about potential impacts of the methodology on competition in the market for resource recovery services under the *Resource Recovery and Circular Economy Act, 2016*
- 2. SO shall ensure its Code of Conduct applies to all SO staff and develop a plan by February 15, 2021, to the satisfaction of Authority staff, to ensure measures are in place at the staff level to further mitigate conflict of interest
- 3. SO is required to develop a plan by May 31, 2021, to the satisfaction of Authority staff, to ensure data retained outside of its enterprise resource planning system is managed in a secure manner and destroyed following wind-up of the Blue Box Program
- 4. SO is required to develop a plan by September 15, 2021, to the satisfaction of Authority staff, to maintain or minimize reduction in program performance during the wind-up process
- 5. SO is required to update the plan as required to address operational and implementation issues and as directed by Authority staff
- 6. SO shall provide any information identified by Authority staff that it requires to perform its mandated duties."

Next Steps

Niagara Region will be submitting a follow-up report on the final Blue Box regulation, once it is released by the Province.

Respectfully submitted and signed by

Brad Whitelaw, BA, CIM, CPM, P.Mgr., CAPM
Program Manager, Waste Policy & Planning

MEMORANDUM

WMPSC-C 4 2021

Subject: Discontinuation of the Broken Container Exchange Program

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Lucy McGovern, Collection and Diversion Program Manager

As part of the Region's Budget Planning Strategy to help mitigate budget pressures in 2021 and mitigate requisition increases on taxpayers, a number of items were put forward to ensure a reasonable budget increase was presented for 2021. One of these items is Niagara Region's recycling and green bin broken container free exchange program. This free exchange program will cease on April 1, 2021.

In 2019, \$338,108 was spent to purchase recycling boxes and green bins. It is estimated that \$111,346, or 33%, was spent to exchange broken containers for residents.

The elimination of the free exchange program was introduced to the Budget Review Committee of the Whole (BRCOTW) on November 26, 2020 in report CSD 66-2020 and was approved by Regional Council on December 17, 2020.

Broken Container Exchange Program

Since 2009, Niagara Region has exchanged broken recycling and green bin containers at no fee to residents to:

- Encourage participation in curbside diversion programs;
- Decrease the volume of waste to Regional landfills;
- Decrease greenhouse gases generated by the disposal of organic waste in landfills;
- Promote neater, more efficient collection at the curbside through the use of functional containers; and,
- Extend a sense of benefit to residents from the revenues recognized by the Region from the sale of the collected recyclables.

It should be noted that Niagara Region continues to provide recycling and green bin containers at no fee to homeowners and renters within 12 months of moving into their new home.

Alternatives to Broken Container Free Exchanges

If residents have a broken recycling box, green bin or kitchen catcher after April 1, 2021, two options are available to them:

1. Residents may use any other rigid plastic container for organics and recycling, so long as the material is sorted correctly. The alternate container must be obvious to collection staff (i.e. clearly labelled or have an open top so sorted materials are visible). The alternate container must have handles and must not exceed 91 cm (36 inches) tall, 61 cm (24 inches) wide or 22.7 kg (50 pounds) when full.
2. Residents may purchase replacement containers on the [Niagara Region website](http://www.niagararegion.ca/waste) (www.niagararegion.ca/waste). Recycling boxes are \$6; Green bins are \$17 and Kitchen Catchers are \$4. Taxes are included. Residents can select their preferred pick up location and pick up date.

During the current pandemic, containers may be obtained through contactless pick-up at the Region's Recycling Centre in Niagara Falls, at the Humberstone Landfill Reuse Centre in Welland, at the Niagara Road 12 Landfill and Reuse Centre in West Lincoln or at the Bridge Street Waste and Recycling Drop-off Depot in Fort Erie. Some participating municipal offices are still open to distribute containers by appointment only for curbside pick-up. Residents may contact their local municipal office over the phone to see if they can make an appointment to purchase containers under COVID safety protocols. A list of all of the container distribution locations can be found on the Niagara Region website.

Next Steps

Niagara Region will communicate the program change to all participating municipal, retail and Regional distribution locations. A 'Frequently Asked Questions' document to support any enquiries from the public will be provided to our program partners.

Promotional and educational channels including the Region's web page, the Niagara Region Waste App, social media and a media release will be issued to communicate the program change before April 1, 2021.

Staff will reconsider the broken container exchange fee in 2022 dependent on budget availability.

Respectfully submitted and signed by

Lucy McGovern
Collection and Diversion Program Manager

NIAGARA REGION
WASTE MANAGEMENT SERVICES DIVISION
HUMBERSTONE LANDFILL SITE PUBLIC LIAISON COMMITTEE

Notes of a meeting of the Humberstone Landfill Site Public Liaison Committee (PLC) held at Civic Square, Room #109, 60 East Main St., City of Welland, on Wednesday, April 3, 2019.

ATTENDANCE

Committee: Mike Dickman, Trevor Stratton, Timothy Clegg, Pat Chiocchio, Regional Councillor

Staff: Jamie Kristjanson, Hydrogeologist Environmental Engineer
Sandy Sawatzky, Waste Management Clerk/Program Administrator
Emil Prpic, Associate Director Disposal Operations & Engineering
Isaac Van Ravenswaay, Supervisor Waste Disposal Operations

Regrets: Jay Mitchell, Jim Larouche, Councillor City of Welland

Guests: Leo VanVliet

1. ACCEPTANCE OF AGENDA

The agenda was accepted and the meeting called to order at 7:00 pm.

Moved by: Timothy Clegg

Seconded: Pat Chiocchio Carried

2. VOTING OF INTERIM CHAIR

Motion: to nominate Trevor Stratton to Chair current meeting

Moved by: Mike Dickman

Seconded: Timothy Clegg Carried

Trevor Stratton accepts

3. MEMBERSHIP

- Current citizen membership has been extended to May 31st 2019 due to Niagara Region assessing which committees to retain. The Humberstone PLC will be retained as an advisory committee to Regional Council.
- The Region Clerks office will advertise for new citizen members. The Terms of Reference for the PLC (a guide on the purpose of the PLC and how it operates) allows up to 6 citizen members.

- A member asked if the Ministry of the Environment, Conservation and Parks (MECP) recommended a Public Liaison Committee for the Humberstone Landfill Site. Region staff responded that in the Ministry approval for the municipal Environmental Assessment for the vertical expansion of the Landfill, the Ministry stated that a PLC committee be retained as long as there is public interest in having committee. It also stated that if there was no interest in having the PLC, then the Region has to keep the community aware of issues at the landfill.
- A member provided comment that the Committee has retained a hydrogeologist to provide an independent set of eyes along with the Committee. Region staff responded that the Committee has a \$6,000 annual budget to retain the services of a consultant to advise them on the operations or monitoring of the landfill. The PLC had previously retained Wilf Ruland, an independent hydrogeologist that specializes in helping PLCs around Ontario to understand landfill monitoring issues, to review the annual monitoring report for the Humberstone Landfill that the Region provides to the Ministry.

4. APPROVAL OF PREVIOUS NOTES and Member Information Requests

Notes of the March 14, 2018 meeting.

Comments/Questions:

- A member asked if the Landfill produces enough methane gas to burn and produce revenue by generating electricity. Region staff responded that a consultant (Golder Associates) completed an assessment on how much methane gas would need to be produced by the landfill and captured to make generating electricity a viable option. The gas collection and flare system would need to be flaring gas on a continuous basis to be able to generate electricity to put into the electrical grid. Currently there is insufficient gas being produced by waste decomposition, and the gas flare only operates one day a week. Also, as waste collection moves towards more diversion of organics out of the landfill and towards composting, the new waste being landfilled will have less organics in it to decompose to make methane.
- Landscaping Plan for St. George Park. The landscape drawings had been provided to the PLC. The firm Touchstone, a landscaping contractor, was retained to plant the trees on the berms at the south end of St. George Park. Planting will occur in the fall 2019 and will be coordinated with the City of Welland. A member asked why are there so many whips (very small trees) being planted. Region staff responded that many whips can be planted inexpensively. Some will die off while some will take and grow. Whips are supplemental in succession growth, and will fill in the open areas between the larger trees being planted.

- A member asked when the newly approved landfill capacity will start to be used. Region staff responded that there is from 12 months to 18 months of remaining capacity before the newly approved capacity will start to be used. At the moment there is an agreement in draft between the Region and the City on a waste royalty, where the City will receive royalty payments when the new capacity starts to be used.

Motion: to accept the Meeting Notes

Moved by: Timothy Clegg

Seconded: Trevor Stratton

Carried

5. UPDATE ON LANDFILL GAS COLLECTION AND FLARE SYSTEM

- Phase 2 of the gas collection system is scheduled to be installed during spring/summer 2019. A series of trenches will be excavated about 3 m into the waste, perforated collection pipe placed into the trenches and the trenches backfilled with gravel and then waste. There is the potential for odours as will be digging into the waste. The contractor will complete the work before June 6th which is the date that the swimming pool opens in St. George Park. The contractor has an odour control plan which will be implemented if odours were to affect the community. There will be sniff-testing along the landfill fence line on a daily basis, and if odours are detected then the work will be modified or temporarily stopped, and odour suppressing agents applied.

6. UPDATE OF THE HUMBERSTONE LANDFILL EXPANSION

- The MECP provided approval for the Landfill expansion in the Environmental Compliance Approval (ECA) issued February 5, 2019. The MECP also consolidated all of the other individual ECAs for the Landfill (Waste Disposal, Sewage, and Air/Noise) into this one document.
- The leachate pumping station operations will be upgraded for remote monitoring. Operations staff will be able to check on pump operation from anywhere and at any time from the internet.
- The secondary leachate collection system (sLCS) in the southwest corner of Landfill is scheduled for installation during summer 2020. The purpose of the sLCS is to capture possible leachate-impacted groundwater that may be moving underneath the shallowest portion of the main leachate collection system in this area of the Site.
- The perimeter ditch at the base of the landfill sideslope will be lined with an impermeable plastic membrane. The work is scheduled for summer 2020. Currently some of the runoff flowing in the ditch infiltrates downwards into the adjacent perimeter leachate collection system. This increases the volume that is

pumped to the Welland Wastewater Treatment Plant for treatment. If the treatment plant is at processing capacity during snowmelt or a heavy rainstorm, than a landfill leachate holding tank has been proposed to hold several days volume of pumped leachate, temporarily keeping it away from the treatment plant. However, the size of the holding tank will depend on how successful the ditch lining is at stopping stormwater from entering the leachate collection system.

7. OTHER BUSINESS

- The committee members discussed the retention of a third party consultant, as had been done in previous years, to review the annual monitoring report. The consensus was to retain the hydrogeologist Wilf Ruland to review the 2018 annual environmental monitoring report as he is very knowledgeable and has performed well in the past.

Motion: for Region staff to contact Wilf Ruland to obtain a proposal, and to retain Wilf Ruland to review the 2018 annual environmental monitoring report.

Moved: Trevor Stratton

Seconded: Mike Dickman

Carried

- Citizen provided a photograph taken at the Landfill of the Region's maintenance contractor creating wind-blown dust while cleaning dirt from the vehicle weigh scale area using compressed air equipment. The dust was blowing onto cars travelling to the inbound weigh scale. Region staff responded that we are aware of the incident and have spoken with the maintenance contractor to clean the weigh scale area on a wet day and with an electric broom.

Next meeting: July with suggested dates to be sent to the Committee.

8. ADJOURNMENT

Moved by: Trevor Stratton

Seconded: Tim Clegg

Committee adjourned at 8:40pm

Carried

Cc Kelly Tonellato MOECC on meeting minutes

NIAGARA REGION
WASTE MANAGEMENT SERVICES DIVISION
HUMBERSTONE LANDFILL SITE PUBLIC LIAISON COMMITTEE

Notes of a meeting of the Humberstone Landfill Site Public Liaison Committee (PLC)
held through ZOOM November 25, 2020.

ATTENDANCE

Committee: Mary Lynn McConnery, Jay Mitchell, Dwayne White, Pat Chiocchio,
Regional Councillor, Jim Larouche, Councillor City of Welland

Staff: Jamie Kristjanson, Hydrogeologist Environmental Engineer
Sandy Sawatzky, Waste Management Clerk/Program Administrator
Emil Prpic, Associate Director Disposal Operations & Engineering
Mariano Singzon, Supervisor Waste Disposal Operations

Regrets: Chris Machulla, Jordan Price

1. INTRODUCTIONS

- All members introduce themselves to group and why they are interested in the committee.

2. ACCEPTANCE OF AGENDA

- The agenda was accepted and the meeting called to order at 7:00 pm.
- Committee members approve.

Moved by: consensus

Seconded: consensus

Carried

3. PLC TERMS OF REFERENCE AND VOTING OF CHAIR

- Purpose of the PLC is to inform the community of issues related to the landfill and as a forum for the community to voice concerns to the Region about the landfill.
- Vote for Chair – purpose of the Chair is to ensure the Committee runs effectively and is respectful to all. The Chair can distribute information to the Committee and acts in the role of liaison between the Committee and the Region. Chair is a 1 year term after which the Committee votes in a chair for the following term.
- Any citizen members are able to chair. It is recommended by the Committee to vote for the Chair at the next meeting, as not all of the citizen members were able to attend the current meeting, and an Acting Chair is appointed for this meeting.

Motion: that Pat Pat Chiocchio, Regional Councillor, volunteers to be Chair for this meeting; and that the Region will contact all citizen members regarding the duties of the Chair, so that a Chair can be voted for the next meeting.

Moved by: consensus

Seconded: consensus

Carried

4. APPROVAL OF PREVIOUS NOTES

Notes of the April 3, 2019 meeting.

- Brief discussion of the Notes and no issues brought forward.

Motion: to accept the Meeting Notes

Moved by: Dwayne White

Seconded: Jim Larouche

Carried

5. THIRD PARTY REVIEW OF THE 2018 ENVIRONMENTAL MONITORING REPORT

- Staff explained that the PLC, in the past, had retained a third party (Wilf Ruland) to review the annual environmental monitoring reports for the landfill. Wilf Ruland had been retained by the PLC from the last meeting held in April 2019. The PLC members were provided Wilf Ruland's review of the 2018 environmental monitoring report as part of the Agenda package.
- A member asked if the ponds at the landfill are lined. Staff responded that the storm water ponds are not lined, but the natural clay in which the ponds were dug is of good quality to retain the water.
- The Acting Chair requested a short presentation for the PLC on landfill leachate and how leachate can impact groundwater and surface water.

Action: The Region to provide a presentation on the landfill and environmental effects. (Jamie Kristjanson)

6. UPDATE ON THE HUMBERSTONE LANDFILL EXPANSION CONSTRUCTION

- Ministry of Environment, Conservation and Parks (MECP) approved the vertical expansion of the landfill as part of the environmental assessment process. The landfill mound is currently flat. However, the expanded landfill will be higher on the west side of the Site than on the east. The shifting of the mound was done on purpose so that the landfill mound will be shorter in the view from St. George Park, and higher on the west side which is screened from viewing by the forest located west of St. George Park.

- Construction activities include the relining of the perimeter ditch system at the base of the landfill. The ditch was relined with a plastic membrane and then covered with gravel. The trenching has been completed for the secondary leachate collection system, which is L-shaped and located in the southwest corner of the Site where the leachate collection system is shallow.
- Phase 1 of the gas collection system was installed in the north central part of the landfill and Phase 2 was constructed and completed on the west side of the landfill in 2019. A member commented that the gas is flared, but could the energy be used to heat the buildings at the Site. Staff responded that the Region had been approached by companies but it is not a viable option to put onto the electrical grid. The gas system is being constructed in phases and over time will be collecting more gas. At present not viable to heat on-Site buildings as the flare only operates 1 day a week, but it may be considered in the future. With separate organics collection this may actually reduce methane that is produced from any new waste.
- A member mentioned the PCB waste containment cell in the northeast corner of the Site and asked for an explanation for the new members. Staff responded on the history and function. In the 1980s there were sewage lagoons at the landfill, and the landfill accepted sludge into the lagoons from the local industry company (Stelpipe). After the fact PCBs were found in the sludge. The sludge was excavated, dried out, and placed into the PCB waste containment cell which was constructed by the City and Stelpipe. This is basically a separate small landfill unto itself, with a bottom clay liner and plastic membrane, then the PCB sludge, then a top clay cap, plastic membrane and another clay cap. Several studies have been completed around the cell. Testing was completed on the water and sediment of the adjacent creek (the Brown Tap Drain) and on the aquatic life in the creek, as well as in the Welland River where the Brown Tap Drain discharges into the River. The testing showed that there were no effects, but there remains low levels of PCBs in the bottom sediment of the Brown Tap Drain. PCB destruction is federally regulated, and the Region had discussions with the Federal and Provincial environment agencies on whether the cell has to be opened and the PCBs sludge removed and destroyed. Both agencies stated that the cell can remain in place and does not have to be removed.
- A member asks if there have been any recent concerns from residents of odours from the landfill in the community and in St. George Park. Staff responded that there have not been any concerns. Councillor Larouche said that he has not been contacted by residents about odours from the landfill.
- A member asks if the gull control program using the falcon is still going on. Staff responded that the falconer is at the landfill almost daily. The gull control program is part of the Landfill operation.

7. UPDATE ON LANDFILL OPERATIONS

- During COVID the Landfill operations have not changed significantly from 2019. A few measures that were implemented include limiting the number of vehicles at the Drop-Off Depot, and changes on how payment transactions take place. The residents have been good and understand that there can be longer lineups as a result. The number of vehicles is a bit lower than in previous years. There can be tweaks and improvements over time to make the operation more efficient. With second wave upon us we have prepared contingencies to help us deal with pandemic related issues.

8. OTHER BUSINESS

- A member commented that constructing an “Energy from Waste” plant would be better in the long run than expanding the landfill to bury waste, as the burned residue is much less volume than the original waste and the power generated can be put into the electrical grid. Staff responded that an Energy from Waste facility is a large capital and operating investment with significant community involvement and regulatory approval. Over 10 years ago Niagara Region had partnered with the City of Hamilton to assess a possible Energy from Waste facility to share costs and achieve economy of scale. In the end there was no agreement and the decision was made to not proceed. The Province is focusing more on the diversion of recyclable materials, which reduces the amount of waste for disposal. Niagara Region is open to new opportunities as they arise and continues to monitor new and emerging disposal technologies.
- Next meeting: The goal is to have 4 meetings a year. The next meeting will be scheduled for March 2021. Other meetings may be in June, September and December. Suggested dates to be sent to the Committee.

9. ADJOURNMENT

Moved by: consensus

Seconded: consensus

Committee adjourned at 8:30pm

Carried

Cc Lisa Benvenuti MECP on meeting notes

MEMORANDUM

WMPSC-C 7-2021

Subject: Mandatory Closed-Top Garbage Containers

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Susan McPetrie, Waste Management Services Advisor

This memorandum provides information on implementing mandatory closed-top garbage containers. It is provided in reference to the Councillor Information Request from the October 28, 2019 meeting of the Waste Management Planning Steering Committee, Minute Item #7.2.

Staff have previously provided information to the Waste Management Planning Steering Committee on recycling container lids and covers. The most recent updates were presented on June 26, 2017 (WMPSC-C 25-2017), February 25, 2019 (WMPSC-C 11-2019) and October 28, 2019 (WMPSC-C 37-2019). These memos outline the options related to Blue and Grey Box containers, but do not address considerations related to garbage containers.

Current By-law

Niagara Region's current Waste Management By-law allows properties with curbside collection to place their garbage in bags and/or cans. Garbage cans must have handles, but are not required to have lids. For those with lids, the lids must be removable.

There are provisions in the current by-law that target the control of animals and litter related to container set out. Section 18.1 specifies that the owner of premises shall set out for collection only containers which are contained, as required, to prevent the attraction of animals (including insects) and the release of odors. Under section 19.1, owners of premises are required to prevent any material set out for collection to become uncontained or otherwise escape. These provisions of the by-law are enforced in response to complaints.

The City of Welland has recently approved an amendment to its Clean Yards By-law to include a requirement that garbage containers kept in yards be made of rigid, watertight

construction, have a tight-fitting cover and be maintained in good condition. The by-law specifically targets containers that are in residents' yards. It does not extend to containers that are placed out at the curb, which remain under the jurisdiction of the Region.

The amendment to the Clean Yards By-law also requires that containers be located in the side or rear yard and not the front yard or porch. While the City is responsible for the enforcement of its by-law, City staff will work with the Region to coordinate on related issues, such as the Region's set out service, which allows residents who have received approval, to place garbage containers in front of their house rather than at the curb for collection.

Other Jurisdictions

A review of Niagara's thirteen (13) comparator municipalities found that two (2) municipalities, Toronto and Peel, use cart-based systems that require residents to use carts with lids for all waste streams. All of the remaining eleven (11) municipalities allow the use of garbage cans, but in only one (1) municipality, the City of Windsor, is the use of a closed-top garbage can mandatory. Windsor also requires that a plastic garbage bag be used inside the garbage can. Seven (7) of the eleven (11) municipalities that allow garbage cans do not require that the garbage can have a lid. Appendix A contains a table with the allowable containers for each of the thirteen (13) comparator municipalities.

Implications of Mandatory Closed-top Garbage Cans

Closed-top garbage cans are one option for reducing windblown litter. However, if the garbage is loose inside the can, there is potential for the material to become windblown as it is transferred into the collection vehicle.

Requiring properties to set out closed-top garbage containers may restrict choice and flexibility. In addition to affecting service users' convenience, specifically the ability to choose their preferred container type, for a subset of users, a new container would have to be purchased. For properties with long driveways or limited storage, garbage cans may present logistical challenges. With every-other-week garbage collection, residents would potentially need to purchase and store two (2) garbage cans or possibly more for occasional exceedances of the garbage container limit (e.g. amnesty week). There are also potential challenges with lids being lost or blown away. Additionally, garbage can

lids may negatively impact collection time and efficiency, which has been observed during pilots which tested use of various recycling box covers.

Requiring the use of garbage cans with lids would require additional communication and promotion resources to inform service users of the change. Also, in addition to the current enforcement needed on-road to ensure adherence to the existing Waste Management By-law, more resources would be required to enforce mandatory closed-top garbage cans.

Alternatively, moving to a cart-based system would require an initial investment to provide carts to properties and an annual maintenance and replacement cost. Peel Region, which introduced carts in 2013, reported an initial cost of \$35 million to provide carts for a three (3)–stream waste system or \$109/household. Annual maintenance and replacement costs were estimated to be \$1 to \$3 million or \$3 to \$9/household. Cart-based systems are also known to increase the contamination of recyclable material, resulting in decreased market value.

Next Steps

Niagara Region's current Waste Management By-law does not require garbage to be set out in a can with a lid. As in seven (7) of the Region's thirteen (13) municipal comparators, garbage cans with lids are allowed but not mandatory. Key considerations in introducing the requirement for mandatory closed top garbage cans include potential impacts on service users' convenience, flexibility and storage needs as well as additional resources required for communicating and enforcing the by-law change. Staff will continue to enforce Sections 18.1 and 19.1 of the Waste Management By-law.

As the City of Welland has recently introduced a requirement that garbage cans in yards have lids, the Region can monitor their progress with implementing this change and report back on their experience.

Respectfully submitted and signed by

Susan McPetrie
Waste Management Services Advisor

Appendices

Appendix A – Allowable Containers in Niagara Region’s Comparator Municipalities

Appendix A - Allowable Containers in Niagara Region's Comparator Municipalities

Municipality	Acceptable Container Types	Lid Requirements	Garbage Bags Allowed	Garbage Containers Provided by Municipality
City of Barrie	Garbage bags and cans allowed	Garbage can, if used, must have a removable water-tight lid	Garbage bags are allowed	No
City of Hamilton	Garbage bags and cans allowed Plastic bags must be used inside containers (no loose garbage)	Not specified	Garbage bags are required inside cans. Garbage bags may also be used without the can.	No
City of London	Plastic bags and metal or plastic cans allowed	Lids are allowed, not required, and must be easily removable	Garbage bags are allowed	No
City of Markham	Clear garbage bags only The garbage bags may be placed inside a can	Not specified	Clear garbage bags are required and may be used inside can or without the without a can.	No
City of Ottawa	Garbage bags and cans allowed Plastic bags must be used	Removable, water-tight lid required	Garbage bags are required inside cans. Garbage bags may also be	No

Municipality	Acceptable Container Types	Lid Requirements	Garbage Bags Allowed	Garbage Containers Provided by Municipality
	inside containers (no loose garbage)		used without the can.	
City of Toronto	Mandatory garbage carts in four (4) sizes For locations with special approval, a bag-only program is available for an annual fee.	Carts have an attached lid that must be closed. Additional garbage must be bagged and tagged.	Garbage bags are only allowed for excess garbage with a tag or with special approval from the City.	Yes (fees depend on cart size)
City of Vaughan	Bags and cans allowed	Close fitting lids are required on cans	Garbage bags are allowed	No
City of Windsor	Metal or plastic can with plastic bag (no loose garbage inside container)	Removable, water-tight lid required	Plastic bags must be inside a hard-sided container	No
Durham Region	Garbage bags and cans allowed	Lids are allowed, not required, and must be easily removable	Garbage bags are allowed	No
Halton Region	Garbage bags and can allowed	Not specified	Garbage bags are allowed	No
Peel Region	Mandatory carts for majority of	Carts have an attached lid that	It is preferred to use a	Yes

Municipality	Acceptable Container Types	Lid Requirements	Garbage Bags Allowed	Garbage Containers Provided by Municipality
	households. Some homes continue to have bag-based collection.	must be closed. Additional garbage must be bagged and tagged.	plastic bag in the cart, but it is not mandatory.	(fee for delivery, free replacement for stolen, broken and damaged carts)
Waterloo Region	Garbage bags and cans allowed	Not specified	Garbage bags are allowed	No
Simcoe County	Garbage bags and cans are allowed. Plastic garbage bags must be used inside cans.	Not specified	Garbage bags are required. May be placed inside cans.	No

MEMORANDUM

WMPSC-C 8-2021

Subject: Information on Plastic Garbage bags

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Susan McPetrie, Waste Management Services Advisor

This memorandum provides information on the tonnage of plastic garbage bags being collected by Niagara Region annually and the options for mitigating the use of these bags. It is provided in reference to the Councillor Information Request from the October 28, 2019 meeting of the Waste Management Planning Steering Committee, Minute Item #3.1.

Annual Tonnage of Plastic Garbage

Niagara Region does not have data for the precise tonnage or number of garbage bags being collected each year. Curbside audits do not provide counts of bags specifically, only full container equivalents. However, data from the Region's 2015/2016 Seasonal Low-Density Residential Dwelling Curbside Waste Composition Study provides a close approximation of the tonnage of garbage bags going to the landfill. For that study, waste was sorted into standard categories based on Stewardship Ontario's waste audit protocol. Garbage bags were sorted into the LDPE/HDPE film products (non-packaging) category. This category accounts for 4.16 kg/household/year or 1.3% of the garbage stream by weight. Other municipalities using the same study methodology report similar data for these products.

Mitigation

An increasingly common approach to mitigating the use of single-use plastics items, such as garbage bags, is to introduce a ban on specific products. Implementing, promoting and enforcing this type of ban at a regional level would present challenges. Many single-use plastic bans are implemented through legislation on the sale and distribution of the targeted product. As described in more detail below, this would involve determining which products are included in the ban, which businesses are subject to the legislation and how to manage products coming from outside of the region

(i.e. online or other municipalities). Alternatively, a ban on the use of plastic garbage bags would require additional resources to communicate and enforce.

Single-use plastic bans have been proposed at the provincial and federal level. This broader level of legislation would facilitate the transition to removing single-use plastics from the waste stream. The federal government's single-use plastics ban is expected to be finalized by the end of 2021. While the specific details of the regulation will be the subject of discussions with the provinces, territories, industry and other stakeholders, Environment and Climate Change Canada released a discussion paper in October of 2020 with a proposed approach to managing plastic products. Within this discussion paper, the federal government identified several single-use plastic items to restrict or ban, including plastic check-out bags, stir sticks, straws, cutlery, six-pack rings and food service ware.

At the provincial level, the Government of Ontario introduced Bill 82, Single-Use Plastics Ban Act, 2019 to amend the Resource Recovery and Circular Economy Act, 2016. It specifies that within one year after the day that the Act receives Royal Assent, the minister shall amend the strategy to include a plan to identify measurable targets and timelines for the reduction and eventual elimination of single-use plastics, including plastic straws, stir sticks, expanded polystyrene foam food and beverage containers, plastic bags, disposable coffee cups and plastic water bottles intended for single use.

The intention of single-use plastics bans is to decrease the amount of plastic entering the natural environment. However, in selecting items to include in these bans, the net environmental impact must be considered as alternatives may also present significant environmental challenges. Garbage bags are an effective method of controlling litter. One of the key pathways for plastics entering the environment, waterways and oceans is from litter and inadequately managed waste. Garbage that is not secured during storage or transport is at risk of leakage to the natural environment.

Alternative or substitute products, such as compostable or oxo-degradable plastic may create their own environmental issues. Compostable materials that are disposed of in the landfill do not have the necessary conditions to breakdown (i.e. oxygen). Certified compostable materials are verified to breakdown in industrial composting facilities, not landfills. Oxo-degradable products are conventional plastic materials that include additives which, through oxidation, lead to accelerated breakdown. These materials fragment into microplastics that have the potential to remain in the environment for long periods of time.

Considerations

Since garbage bags are readily available for purchase, are not entering the natural environment and are being directed to secure landfill sites, restricting the use of garbage bags for curbside collection may be unduly onerous at this time and reduce flexibility for residents and businesses. Maintaining service users' convenience, including the ability to choose the container type that is best suited to their situation (e.g. rural residences with long driveways) may be preferred, as bags are also used for containing recyclables in order to avoid windblown litter. Requiring the use of garbage cans, instead of bags, may also create a storage challenge for residents and businesses with limited space that would need to store two (2) cans for every-other-week garbage collection and potentially additional cans for occasions when the limit is exceeded (e.g. amnesty week).

Another challenge to implementing a plastic garbage bag ban at the Regional level includes defining the type of products that would be banned, as plastic bags are pervasive and many variations are available online and in retail outlets, including plastic grocery bags, which are sometimes used for containing garbage even if a garbage can is used to set out material for collection. Plastic bags are widely used for a number of functions, including lining indoor garbage receptacles and public space recycling containers in some municipalities.

Without a broader federal or provincial policy to support a ban, there would be additional communication and promotion resources needed to inform service users of the change. Also, in addition to the current enforcement needed on-road to ensure adherence to the existing Waste Management By-law, a garbage bag ban would require more resources to enforce.

As demonstrated by other municipalities, introducing a targeted single-use plastics ban can be a significant, multi-year undertaking. For example, in Vancouver, where a ban on foam cups and containers began January 1, 2020, a ban on plastic straws started April 22, 2020 and a ban on plastic bags took effect on January 1, 2021, the process was initiated in 2016 with two (2) years of stakeholder consultation. In addition to engagement with residents, industry and other relevant stakeholders, the development of an effective single-use item reduction strategy involves identifying target products, acceptable alternatives, annual reduction targets and potential exemptions. Once the required by-law amendments are approved, educational outreach and phased-in enforcement facilitate transition and implementation. Efforts to undertake this process at

a regional level at this time, should take into consideration the federal work on single-use plastics that is currently underway.

Next Steps

Plastic garbage bags currently represent a small proportion of Niagara Region's residential waste stream by weight, approximately 1.3%. These products are being directed to secure landfill sites and are not entering the natural environment. Plastic garbage bags also provide an effective method of containing materials and preventing litter. Restricting the use of plastic garbage bags may unduly reduce service user's flexibility and convenience.

In terms of broader action on single-use plastic items, as both the provincial and federal levels of government move forward with legislation on these items, Niagara Region can continue to monitor that progress to determine the most effective steps to coordinate and complement those regulations. Additionally, policies and initiatives to reduce waste, including single-use plastics, will be included in Niagara Region's long term waste management strategic plan and associated stakeholder engagement.

Respectfully submitted and signed by

Susan McPetrie
Waste Management Services Advisor

MEMORANDUM

WMPSC-C 9-2021

Subject: Waste Management Tipping Fees

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Andrew Winters, Program Manager, Waste Disposal Operations

The purpose of this memorandum is to provide members of the Waste Management Planning Steering Committee an update on the following changes to the Waste Management tipping fee schedule that was approved by the Budget Review Committee of the Whole for consideration as part of the 2021 Fee & Charges By-Law, as well as outline the communication plan to inform site users of the upcoming tip fee changes.

Key Facts

- The following changes to Niagara Region's landfill tip fee schedule will be as follows:
 - Fee for mixed solid waste including construction/demolition material be increased from \$115 per tonne to \$117 per tonne.
 - The minimum flat fee of \$5.00 be changed to the first 50 kilograms from the current 60 kilograms and pro-rate after 50 kilograms based on \$117 per tonne.
 - The fee for asbestos be increase from \$300 to \$385.
- The above noted changes will come into effect on April 1, 2021.
- Total revenue increase including the increased tipping fee and asbestos rate is approximately \$70K annually.
- The projected 2021 total revenues from tip fees is \$3.635 M.
- Staff are currently reviewing a competitive pricing structure that is consistent with full cost recovery.
- Tipping fees were last adjusted in 2019 with waste/construction/demolition fees increasing from \$100/tonne to \$115/tonne.

Analysis

Niagara Region's landfills currently receive a total of approximately 73,400 tonnes of waste for disposal annually. After accounting for the tonnage related to curbside collection and non-chargeable sources (e.g. municipal self-haul), approximately 25,700

tonnes of these landfilled materials relate to self-hauled waste for which a tipping fee is charged. In addition, a variety of diverted materials is collected at these sites and generates fees based on the respective user fee rates.

In order to inform the update process in 2020 for the rates, a review of tipping fees charged by other public and private sector landfills in comparable jurisdictions was completed. As part of the process, staff reviewed the current tip fees at Walker Industries. The survey addressed three areas: fees charged for various materials, which materials are being recycled and whether a fee is charged for recyclable materials. In total seven (7) public sector and four (4) private sector comparators were assessed. Summary data from that survey is referenced in the sections below.

Table 1: Disposal Fee Comparison Fee per Tonne

Public Sector:

Municipality	Price Per Tonne	Minimum Fee
Niagara Region	\$115.00	\$5 minimum up to 60 Kg.
City of London	\$75.00	\$8 minimum up to 100 Kg.
Peel Region	\$120.00	NA.
City of Toronto	\$159.00	\$15.91/ 100 kg
City of Hamilton	\$122.50	\$8.50 minimum up to 100 Kg.
Durham Region	\$125.00	\$5 for first 40 Kg.
Halton Region	\$170.00	\$5.00 up to 50kg, \$10 from 51kg to 150kg
Waterloo Region	\$82.00	\$5 per load

Public Sector Average is \$122/tonne

Table 2: Private Sector Disposal Fee Comparison Fee per Tonne

Private Sector Disposal Fees:

Companies	Cost Per Tonne (incl. tax)	Minimum Fee
Country-Wide Recycling (Hamilton)	\$ 107.35	30.00 minimum fee

Companies	Cost Per Tonne (incl. tax)	Minimum Fee
Waste Management (St. Catharines)	\$101.85	\$33.81/ 100kg
Walker Environmental (Thorold)	\$132.20	\$11.00 minimum fee
Walker Environmental (Burlington)	\$194.36	\$10.00 minimum fee /58kg
Future Waste Transfer Station	\$108.22	\$10.00 /100kg

Private Sector Average is \$128.80 (includes tax)

As shown above, Niagara's current rate falls below both the public sector and private sector comparator averages, as well as, the residential waste drop-off depot operated by Walker Environmental Group in Thorold.

Based on the above, a revised charge of \$117 per tonne and the minimum charge of \$5.00 be for the first 50 kg was recommended beginning on April 1, 2021. The detailed review of the 2019 tipping fees aligns with the Waste Management Reserve Strategy as approved in CSD 70-2017. The future cost per tonne associated with today's waste is embedded within the proposed tipping fee and will flow directly into the closed landfill liability reserve fund.

Full Cost Recovery

In addition to bringing Niagara Region in line with marketplace pricing, the 2021 Waste Management tipping fees are being adjusted in order to move towards full cost recovery. In 2019 it was estimated that in order for Niagara Region to attain full cost recovery, the tipping fee should be approximately \$128 per tonne. Full cost recovery considers various cost components including direct operations, capital, planning and administrative costs.

Disposal Fee for Asbestos

When comparing asbestos rates with other public and private sector landfills, Niagara Region rate was below Walker's landfill the closest facility that accepts asbestos. The increase brings Niagara in line with Walkers Environmental.

Communication

Niagara Region will notify site users of the above noted changes using a variety of methods including:

- Mailing / emailing letters to contractors registered with Niagara Region Landfills
- Updating Niagara Region Website
- Issuing a Public Service Announcement
- Posting messages on Social Media – Facebook and Twitter
- Placing a sign in the windows of scale houses at each of Niagara Region Landfills.

Relationship to Council Strategic Priorities

The purpose of this report is to support Council's strategic priority of Doing Business Differently.

Other Pertinent Reports

WMPSC-C-33-2018 Waste Management Tipping

WMPSC-C 35 2015 Waste Management Tipping Fees

PWC-C 38-2015 Recommendations of the Waste Management Planning Steering Committee meeting held September 14, 2015 for Consideration

CSD 70-2017 Waste Management Reserve Strategy

Respectfully submitted and signed by

Andrew Winters
Program Manager, Waste Disposal Operation

MEMORANDUM**WMPSC-C 10-2021****Subject: 2020 Illegal Dumping Summary and 2021 Mitigation Measures****Date: Monday, February 22, 2021****To: Waste Management Planning Steering Committee****From: Kate Ashbridge, Supervisor, Waste Management**

This memorandum is intended to provide an update to members of the Waste Management Planning Steering Committee regarding illegal dumping statistics in 2020 and ongoing mitigation measures to address illegal dumping in Niagara Region.

2020 Summary

A total of 678 illegal dumping reports were received in 2020. A high-level summary of the 2020 statistics are provided below, with further details noted in the report.

- 84 of the 678 illegal dumping reports were received via the Online Reporting Tool.
- 42 warning letters were issued.
- Seven (7) offence notices were issued as a result of illegal dumping.

Since the establishment of the Illegal Dumping Working Group in 2012, staff have tracked the number of reports of illegal dumping. In 2020, 678 illegal dumps were reported compared to 2019 where 677 illegal dumps were reported. The number of reported illegal dumps can be highly influenced by the amount of proactive monitoring undertaken by Regional staff. This is especially true for illegal dumping that occurs in or around public space litter bins. A further break down of the illegal dumps by area municipality are listed in Table 1.

Table 1: 2020 Illegal Dumping Investigations by Municipality Total Summary

Municipality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Fort Erie	3	3	2	2	8	5	6	5	5	2	11	20	72
Grimsby	1	0	0	3	0	0	0	2	2	1	1	1	11
Lincoln	0	1	2	0	0	2	0	3	5	1	2	1	17
Niagara-on-the-Lake	8	7	2	4	2	2	0	0	3	0	2	2	32
Niagara Falls	2	10	8	13	14	12	11	8	11	17	22	23	151

Municipality	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pelham	2	0	3	1	3	1	0	2	0	4	1	1	18
Port Colborne	2	2	4	3	5	0	1	3	0	4	1	3	28
St. Catharines	16	9	18	20	7	12	10	7	14	19	28	67	227
Thorold	1	1	4	5	5	3	3	1	7	6	6	3	45
Wainfleet	0	2	1	0	2	2	1	1	1	0	1	0	11
Welland	3	1	7	10	4	2	2	3	2	7	7	3	51
West Lincoln	1	0	1	2	1	2	3	2	1	2	0	0	15
Total	39	36	52	63	51	43	37	37	51	63	82	124	678

Illegal Dumping In Public Space Litter Bins

In 2020, Waste Management staff responded to reports of illegal dumping at public space litter bins throughout the year. However, the frequency of monitoring of public space litter bins was increased in November and December, with the assistance of a student. Additionally, the 2020 litter bin blitz was also conducted at the end of November and into December. 149 of the reported 678 or 22% of illegal dumps that occurred in 2020, were found to be in or around public space litter bins. Table 2 below shows the monthly breakdown of illegally dumped material found in public space litter bins.

Table 2: 2020 Illegal Dumping In Public Space Litter Bins

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
# of dumps in litter bins	11	7	4	7	1	4	2	4	6	6	23	74	149
% of total dumps	28%	19%	8%	11%	2%	9%	5%	11%	12%	10%	28%	60%	22%

Some municipalities have noted an increase in the amount of material being dumped in their public space litter bins. Waste Management staff have responded to all reports of illegal dumping in litter bins, regardless if the public space litter bins are serviced by the municipality or the Region's waste collection contractor.

In Niagara Falls, an enhanced service level change may have resulted in a perceived increase in illegal dumping in and around public space litter bins. Prior to October 19, 2020 the City of Niagara Falls received year round, seven (7) day per week collection of their mainline public space litter bins. The mainline is comprised of four (4) of the Niagara Falls Designated Business Areas; Lundy's Lane, Main Street, Clifton Hill and Victoria Centre and Queen Street. The waste collection contractor is required to collect all material in and around the litter bin. This resulted in some businesses and residents

in the area receiving seven (7) day per week collection of any waste that they illegally set out beside a public space litter bin.

With the new collection contract, the City of Niagara Falls elected to have the mainline public space litter bins collected once per week in the off peak season (Thanksgiving to Victoria day) and seven (7) day per week collection occur during the peak season (Victoria day to Thanksgiving). Municipal staff have reported an increase in the amount of garbage being found in and around public litter bins that may be attributed to this service level change. Waste management staff are proactively monitoring the Niagara Falls' public space litter bins in the mainline, in order to identify material that is set out on the wrong collection day or being placed into litter bins. As part of the service level changes, businesses and property owners, along the Niagara Falls' mainline, received collection details by mail. Designated business area collection guides were hand delivered in advance of the contract transition. The business area collection guides include reminders that litter bins are not intended for waste generated at a business or residence. Businesses and residents, who are found to be setting out their waste in a litter bin are issued a warning letter, notifying them that this is an act of illegal dumping.

Illegal dumping is also prevalent in public space litter bins within the City of St. Catharines. This may be a result of the number of public space litter bins placed along roadways and within City parks, and individuals see this as a convenient way to get rid of materials. Over the last two years, Regional staff have been working with City staff to remove public space litter bins in areas where illegal dumping is prevalent. More recently, a request has come forward to look at installing lids on these bins (currently the bins are open). Staff will be following up with the City staff on this issue.

In 2020, staff completed a Litter Bin Blitz. This involved staff auditing various litter bins across the region to look for evidence of illegal dumping. If any illegal dumping was discovered during the Litter Bin Blitz, warning letters were issued. During the week of November 30, 2020, 457 litter bins were inspected as part of the Blitz. As a result of the blitz, 111 household bags of garbage were collected and inspected for generator evidence. Sixteen warning letters were issued as a result of the Litter Bin Blitz. Educational material, regarding illegal dumping and waste sorting guides were also included with the warning letters. Inspections show that the materials that are illegally dumped in and around public space litter bins is mostly comprised of divertible material, including food waste and packaging.

The litter bin blitz helps Niagara Region proactively communicate that illegal dumping into public litter bins is not permitted. Regional staff previously conducted blitz's in 2012, 2017, 2018 and 2020. The results of these blitz as shown in Table 3.

Table 3: Litter Bin Blitz Results

Year	Litter Bins Examined	Bags Collected	Warning Letters Issued
2012	680	134	32
2017	654	118	33
2018	704	176	43
2020	457	111	16

In 2021, staff, primarily students, will continue to proactively monitor public space litter bins and repeat the Litter Bin blitz in order to reach more residents who are not aware that dumping household material into a public space litter bin is an act of illegal dumping. Public space litter bins will be audited throughout St. Catharines, Grimsby, Thorold, Fort Erie, Port Colborne, Pelham and Niagara Falls. The statistics from this blitz, coupled with data from previous blitz efforts, will be tracked on a map and used to identify hot spots. These hot spots will then be monitored on a more frequent basis.

Illegal Dumping Working Group

Since inception in 2012, the Illegal Dumping Working Group has met biannually. It is composed of Local Area Municipalities, Regional staff from Transportation and Waste Management, representatives from Crime Stoppers and the Seaway Authority. The group works to address the issue of illegal dumping across the region. Due to the COVID-19 pandemic, no in-person working group meetings were held in 2020, and staff resources were spread over other bylaw issues related to the pandemic.

Promotion and Education

In 2020, the Illegal Dumping Campaign artwork was refreshed in order to keep the messaging relevant and eye catching. This new artwork was featured in the 2020 Collection Guide as well as in promotional material targetting illegal dumping. The artwork and slogan See It. Report It. Stop It, which ties into the new campaign slogan for the service level changes Box It Bin It Sort It.

A new Illegal Dumping communications campaign will be rolled out this spring. The illegal dumping campaign will focus on informing residents that illegal dumping is a crime and that any illegal dumping found by residents should be reported. Timely reports of illegal dumping result in faster clean up, avoiding the potential to attract more dumping in an area.

Mitigation Measures

Reporting, Investigating And Tracking

Residents have three (3) options to report illegal dumping:

1. Report online at niagararegion.ca/waste;
2. Call the Region's Waste Info-Line at 1-800-594-5542; and
3. Call Crime Stoppers of Niagara at 1-800-222-TIPS

Residents are encouraged to provide as much details as possible when reporting an illegal dump. However, residents are able to provide reports of illegal dumping even when only a location is known. All reported illegal dumps are investigated and tracked using a mobile app. The mobile app tool, was rolled out in January 2020. This tool allows staff to efficiently record information in the field about each incident. The tool also provides accurate location information that is used to track hot spots and identify areas where illegal dumping is routinely occurring.

Monitoring And Enforcement

In 2020, the Niagara Region Waste Management By-Law was amended in order to reflect the changes to waste service levels, which came into effect on October 19, 2020. As part of the By-Law review process the set fine for illegal dumping on public property was increased from \$500 to \$750. The set fine for illegal dumping in a public litter bin remains \$150. A victim fine surcharge and a court fee will also be applied and charged in addition to the set fine. Niagara Region has jurisdiction to enforce acts of illegal dumping on any road or public property.

During an illegal dumping investigation, if sufficient evidence is found then staff are directed to issue an offence notice for the illegal dumping. Alternative enforcement actions include, gaining compliance by allowing a suspect to clean up illegally dumped material or issuing a warning letter when evidence available is not sufficient on order to obtain a conviction.

Reward System

In an effort to promote and encourage residents to report witnessed illegal dumping, Niagara Region offers a reward system for reporting illegal dumping on public property where compliance was achieved and/or there has been a successful conviction. Any person whose report results in an act of compliance is entitled to a \$50 reward. Further, any person whose report leads to a conviction is entitled to a \$200 reward. By-law

officers investigate and enforce reported issues as soon as possible and get them cleaned up quickly. In 2020, two (2) rewards were awarded.

Conclusion

Similar to other municipalities, illegal dumping continues to be a concern throughout the region. Although Every-Other-Week (EOW) collection did not appear to have a large impact on the number of reported illegal dumps in 2020, the Region is aware that there is a tendency to observe increased illegal dumping as a short term impact to the service level change. This is based on comments from other municipalities that have transitioned to EOW collection. In 2021 Waste Management staff will continue to respond to reports of illegal dumping and conduct proactive monitoring of hotspots and public space litter bins. Niagara Region's proactive illegal dumping monitoring, communication campaign and enforcement measures in conjunction with the on-going work by the Illegal Dumping Working Group as discussed in this memo will continue to focus on deterring acts of illegal dumping.

Respectfully submitted and signed by

Kate Ashbridge
Supervisor, Waste Management

MEMORANDUM

WMPSC-C 11-2021

Subject: Anti-Litter Initiatives – Blue Box Lid

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Lucy McGovern, Collection and Diversion Program Manager

Background

The purpose of this memorandum is to advise members of the Waste Management Planning Steering Committee (WMPSC) of the completed blue box lid trial to support the reduction of litter observed in Niagara Region communities.

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); February 25, 2019 (WMPSC-C 11-2019); and October 28, 2019 (WMPSC-C 37-2019). 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 Niagara Region has addressed the issue of litter and introduced the blue box lid trial to support the reduction of litter.

Blue Box Lid Trial

During the first week of November 2019, Region staff distributed one blue recycling box and one locally sourced, vented, plastic recycling box lid, to a total of 349 households in Lincoln, as well as in residential student areas in Thorold. These zones were selected based on resident and Councillor comments and concerns in these known problem litter areas (see Appendix A).

A promotional card accompanied 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 curbside recycling from blue boxes (containers and rigid plastic packaging) and from grey boxes (paper,

cardboard and bundled plastic bags). The promotional card encouraged 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 were also provided on the card (see Appendix B).

To solicit feedback from residents in the trial areas on their experience with the recycling box and lid, the promotional card requested user participation in a short online survey. The survey opened two weeks after residents received their recycling box and lid, and remained open for a period of two weeks. An incentive prize of a \$100 VISA gift card was 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 was also provided, and customer service representatives were provided with a FAQ sheet to support their responses to potential enquiries regarding the lid (see Appendix C).

A limited supply of the vented, rigid, plastic lids were made available at the Region's Recycling Centre for free distribution to any resident that may have enquired about the availability of the lid; however these lids do not necessarily fit the wide variety of recycling boxes in use by all Niagara residents since historically, Niagara Region has purchased recycling containers from a number of different manufacturers through a competitive process. The available lids fit the recycling boxes currently distributed and sold by Niagara Region. Only two residents have requested a recycling box lid since the onset of the trial.

A total of six households (less than two per cent) responded to the survey. A summary of the results are available in Appendix D. Each of the six respondents stated that they used the provided blue box and lid to prevent litter, and reported that the lid and the literature provided helped reduce litter. Three of the respondents previously used clear bags for recycling, and two of these stated that they preferred to use the recycling box and lid because they felt it was more effective than clear bags; while one stated that the lid was more effective than the open box, but not more effective than clear bags.

The respondents previously used a variety of alternative tactics to reduce litter from recycling boxes on windy days. In particular, stacking the recycling boxes on top of one another; and flattening containers placed into the boxes were the most common responses. These were followed up by the next most common responses including the placement of something heavy on top of the recycling boxes to stop the material from blowing out; and delaying placement of recycling boxes at the curb for collection until the next collection week.

Four of the six respondents stated that they would consider purchasing a recycling box lid or cover at retail prices between \$5 and \$10 from local vendors. One of the remaining respondents stated that they would not consider this as they do not have enough recycling to necessitate this purchase; while the other respondent did not offer a reason in their response. General comments from one respondent stated that in order for the recycling box lids to be effective, curbside collection staff would need to place the lid back on, or in, the empty box in order to avoid lost lids; and that clear blue bags or heavier containers like the green bin with lids attached, would be a more secure option for recyclables than the current boxes and lids.

The cost of this initiative was approximately \$3,300 and included the cost of the program boxes and lids, as well as the design and printing of the promotional cards.

With respect to the replacement of lids, the current collection contract states: *“Property Owners may use covers, such as lids or netting, for their Blue/Grey Boxes to prevent materials from blowing out. At present, a minority of property Owners use covers. The Successful Proponent must remove covers with care, so not to cause damage to them. If covers are completely removed by the Successful Proponent, the covers must be placed inside the empty Blue/Grey box and returned to the original set-out location.”*

Collection staff from both of the Region’s current contractors have indicated a preference for clear bags over recycling box lids/covers to control the potential for litter. Based on pilots in other municipalities, each contractor noted experiences with lids and covers that became warped/damaged or had been blown away by wind (similar to garbage can lids). Also noted was a rise in complaints from residents wanting replacements for the lost or damaged recycling box lids/covers. One Region contractor had concerns about a possible decrease in productivity should the prevalence of covers or lids increase; while the other Region contractor highlighted possible health and safety concerns as a result of the repetitive motion involved with routinely removing the recycling box lids/covers if the use of these lids became more wide-spread.

Recycling Box Lid Distribution Area Audits

Region staff visited the 349 homes in the recycling box lid distribution areas for two consecutive weeks in February, 2020 - three months after the initial distribution of the recycling boxes and lids in November, 2019 to determine if residents that received these materials were still using them. A total of 21 per cent (or 72) of the households were using the recycling box and lid in the first week, and 11 per cent (or 39) of the

same households were using the recycling box and lid in the second week. Please refer to Table 1 below for additional audit results.

On each collection day, staff noted observed wind conditions, however windy conditions did not consistently correlate to the presence or absence of observable litter in the trial areas. Other factors seem to have contributed to some of the litter observed by staff such as the improper placement of recycling boxes either on top of, or in front of the snowbanks on the street. In some cases, boxes placed in front of snowbanks were knocked over by vehicles, or minor wind conditions may have toppled boxes from on top of the snowbanks causing the observed litter.

The use of clear bags for recyclables in the audit area remained consistent over each of the two weeks at 11 per cent. Clear bag use for recyclables over the use of boxes may support a reduction in litter on windy days, however the weight of Blue Box recyclables inside the bags are generally not sufficient enough to prevent the blowing of the full bags into the street where they were at times observed to have been struck by oncoming vehicles causing litter. Further, clear bags are not preferred as a collection vessel as they create the potential for increased processing challenges at the recycling centre due to the greater time required to open the bags.

Table 1 – Audit Results of 349 Households in Receipt of a Recycling Box & Lid

Week 1	%	Week 2	%
Homes that set out recycling (264/349)	76%	Homes that set out recycling (222/349)	64%
Homes that used the recycling box lid (72/349)	21%	Homes that used the recycling box lid (39/349)	11%
Homes that stacked their recycling boxes (32/349)	9%	Homes that stacked their recycling boxes (33/349)	9%
Homes that used the recycling box lid <u>and</u> stacked their recycling boxes (17/349)	5%	Homes that used the recycling box lid <u>and</u> stacked their recycling boxes (10/349)	3%
Homes that used clear bags for their recycling (40/349)	11%	Homes that used clear bags for their recycling (37/349)	11%

Week 1	%	Week 2	%
Homes that had overflowing recycling boxes (25/349)	7%	Homes that had overflowing recycling boxes (33/349)	9%

Durham Region Blue Box Lids

In the fall of 2020, the Continuous Improvement Fund and Durham Region provided crumb-rubber blue box lids to 1,000 households in ten sample areas in Durham region. Of these households, curbside audits showed that only six per cent used the provided lids. The low participation rate makes it difficult to determine the relationship between the presence of litter and the use of the recycling box lids.

As part of the audits, litter was also gathered, sorted and weighed over a period of three weeks. It is interesting to note that the composition of the litter collected from all ten areas included in the study had an average of 47.8 per cent acceptable recyclable materials. The majority of the litter was therefore made up of garbage, organics, and other waste that would not be accepted in the blue box.

Review

On October 19, 2020, the Ontario Ministry of Environment, Conservation and Parks introduced a draft regulation under the Resource Recovery and Circular Economy Act, 2016 that will make producers responsible for blue box program operation, including collection, as part of the Province's full producer responsibility framework. Subject to the filing of the new regulation and amendments, Niagara Region cannot confirm that it will be the recycling collection service provider upon the completion of Niagara Region's Blue Box program transition, anticipated to occur in 2024.

Based on the uncertainty of the collection processes after the Blue Box program transition; the results of the municipal blue box lid trials; and the availability of recycling box lids and covers in popular department stores at reasonable prices, Niagara Region will continue to promote the current approach to dealing with wind-blown litter, which includes the following:

- Providing recycling boxes with a larger capacity of 83 litres to minimize the overfilling of recyclables

- Allowing containers with a lid that is clearly marked 'Recycling' as an alternative recycling container; or using clear bags - however clear bags are not preferred due to the negative impact on the recycling centre operations
- Advising residents that they are able to purchase and use their own recycling box covers/lids and that these can be purchased at local department stores for a minimal cost
- 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)
- Reminding residents through promotional and educational outlets not to place containers or bags on top of, or behind snowbanks and instead shovel out a space for their waste and recycling material at the curb
- Using social marketing and outreach initiatives to encourage good recycling box set-out practices and promote anti-litter campaigns

An information page has been developed and posted on Niagara Region's website to communicate the above tips to combat litter from curbside waste and recycling placement. The web page reminds residents that they are able to purchase and use their own recycling box covers/lids and that these can be purchased at local department stores such as Canadian Tire and Home Depot for a minimal cost. Additionally, four municipalities (Fort Erie, Grimsby, Niagara Falls and Pelham) have shown interest in participating in an Anti-Litter Working Group to collectively address the prevention of litter in public outdoor spaces in Niagara, as well as helping to connect residents with local community clean up groups. Staff will keep this Committee up to date on the activities of the Anti-Litter working group as it develops.

Respectfully submitted and signed by

Lucy McGovern
Collection and Diversion Program Manager

Appendices

Appendix A – Program Test Zones

Appendix B – ‘Put a Lid on Litter’ Promotional Card

Appendix C – Recycling Box Lid Cover FAQs

Appendix D – Recycling Box Lid Survey Results

Appendix A – Program Test Zones

Lincoln Streets:

1. Serena Drive
2. Gibson Street
3. Fairgrounds Road
4. Jackson Street

Thorold Streets:

1. Winterberry Boulevard
2. Elderberry Road
3. Greenhill Drive

Appendix B - "Put a Lid on Litter" Promotional Card

PUT A LID ON LITTER

Your neighbourhood has been chosen to test this new recycling box lid to combat litter.

Stack your Blue and Grey Box on top of one another and use your new recycling box lid on the top box to prevent flying debris.



On windy days, litter and debris can be an issue when items are blown from curbside recycling boxes.

In addition to using your new recycling box lid, also try some of these tactics to cut down on wind-blown litter on windy days:

- Stack your heavier recyclables on top of lighter materials
- Place your recycling out the morning of collection, rather than the evening before
- Flatten boxboard and stuff it all together into one cardboard box
- Unlimited amounts of recycling can be collected from your home each week, so feel free to skip a week on really windy days
- Don't overfill your Blue/Grey Box

We want to hear about your experience with this lid. Fill out the survey using the link below or contact the Waste Info-Line between Nov. 25 – Dec. 6 for your chance to win a \$100 VISA gift card.

niagararegion.ca/waste/lid

Niagara Region

Waste Info-Line
905-356-4141 or 1-800-594-5542

Appendix C - Recycling Box Lid Covers - FAQs

1. Why are some people using Blue Box lids?

The Region is testing a vented Blue Box lid in a small area of Thorold and Lincoln. These areas were chosen as they are known for high volumes of litter. The Blue Box lids are designed to help reduce litter. The Region is just testing these lids at this time to collect data on how well they work.

2. Can I have a Blue Box lid to try?

At this time, the Region is conducting a small trial test with a limited number of blue lids to collect data on how it works. A limited number of the vented Blue Box lids are available at the Region's Recycling Centre for free distribution while quantities last. These lids will fit on Blue Boxes currently sold by Niagara Region, and may not fit on the wide variety of recycling boxes used by all of Niagara's residents.

3. Can I buy a Blue Box or a Grey Box that will fit the limited number of blue lids available for distribution at the Recycling Centre?

Yes, you can buy a recycling box for six dollars. The available lids are only available in blue, but can be used for either box (Blue or Grey) as long as the materials are separated properly in each box.

4. If Niagara Region runs out of Blue Box lids, where can I purchase one?

Recycling box lids or covers (vented or unvented) can be purchased at local department stores, such as Home Depot or Canadian Tire, for an approximate cost between five and 10 dollars. It is recommended that you check that the lid will fit your recycling box as recycling box sizes can vary.

5. How do these lids work?

The lids are made from plastic and simply snap onto the top of the recycling box making it easy for both residents and collection workers to remove, while preventing the contents inside the recycling boxes from blowing away.

6. Is Niagara Region going to test Toronto-style carts with wheels?

Niagara Region does not have plans to transition from manual curbside collection to an automated cart-based system.

7. Why isn't Niagara Region looking at Toronto-style carts?

Larger wheeled carts are incompatible with the Region's existing two-stream recycling processing facility. Cart-based programs also result in significant amounts of garbage (contamination) which affects overall material quality and lowers revenues which are used to offset the cost of waste management programs.

Appendix D – Recycling Box Lid Survey Results

Response Counts

Completion Rate:	100%	
Complete		 6

Totals: 6


1. Do you feel that your neighbourhood has a litter problem?

Value		Percent	Responses
Yes		66.7%	4
No		33.3%	2

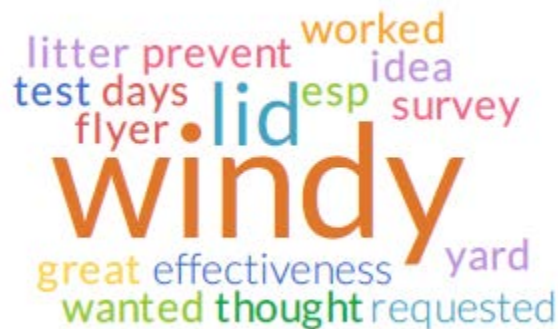
2. What do you think is the main source of litter in your neighbourhood?



3. Your household was supplied with one recycling Blue Box and one matching lid at the beginning of November (Nov. 4-8). Over the past two weeks, did you use the recycling box and lid together?

Value		Percent	Responses
Yes		100.0%	6
			Totals: 6


4. Why did you use it?



5. Why didn't you use it?

No data: No responses found for this question.



6. Did the recycling box / lid and information provided by Niagara Region help to avoid litter on windy days?

Value		Percent	Responses
Yes		100.0%	6
			Totals: 6

7. Do you have any comments on the effectiveness, use, or design of the provided recycling box and lid?



8. If you used the recycling box and lid that was provided, but previously used clear bags for your recycling, will you continue to use the recycling box and lid?




Value		Percent	Responses
Yes, I will continue to use the recycling box and lid		50.0%	3
Not applicable – I didn't previously use clear bags		50.0%	3

Totals: 6

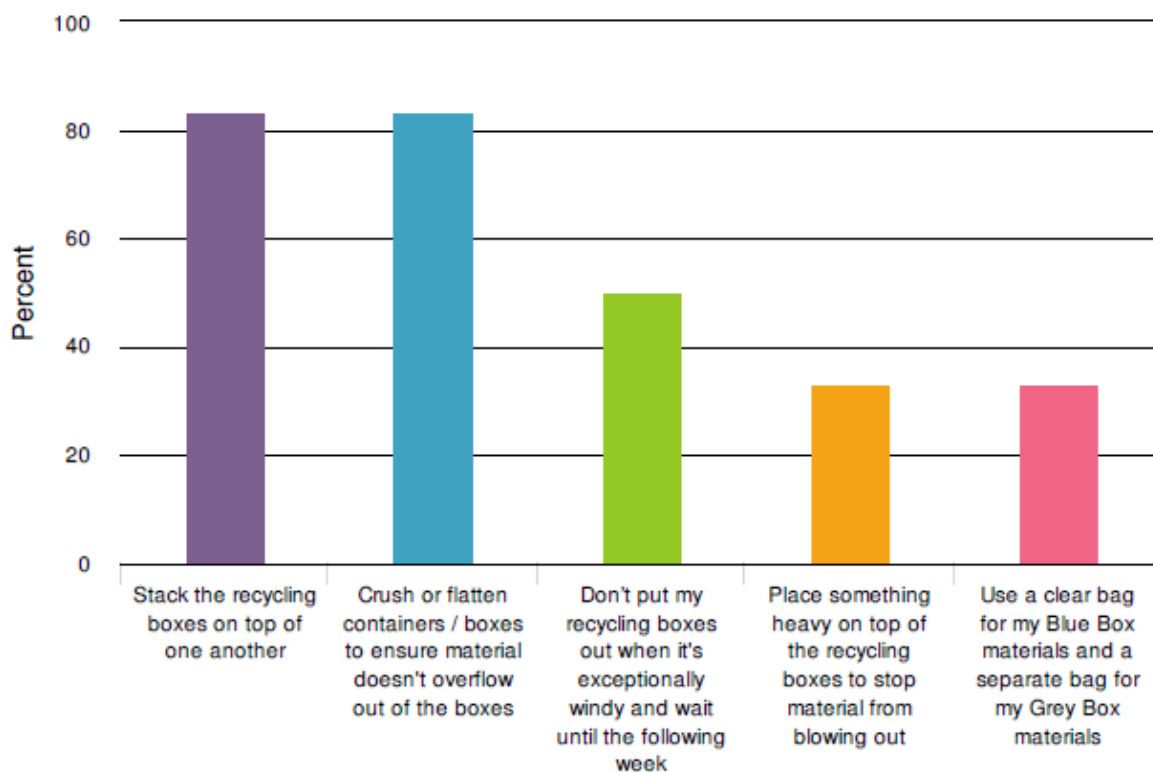
9. Why?








10. Before receiving the new recycling box and lid, were your recycling boxes usually full and overflowing when you put out your recycling boxes for collection?



Value		Percent	Responses
Yes		33.3%	2
No		33.3%	2
Sometimes		33.3%	2
Totals: 6			

11. Before receiving the new recycling box and lid, what would you do with your recycling to stop material from flying away on windy days? Check all that apply.



Value		Percent	Responses
Stack the recycling boxes on top of one another		83.3%	5
Crush or flatten containers / boxes to ensure material doesn't overflow out of the boxes		83.3%	5
Don't put my recycling boxes out when it's exceptionally windy and wait until the following week		50.0%	3
Place something heavy on top of the recycling boxes to stop material from blowing out		33.3%	2
Use a clear bag for my Blue Box materials and a separate bag for my Grey Box materials		33.3%	2

12. When do you usually put out your recycling boxes for collection?

Value		Percent	Responses
Night before collection		50.0%	3
Day of collection		50.0%	3

Totals: 6

13. Would you consider purchasing a recycling box lid or cover at retail prices between \$5 and \$10 from local vendors for additional recycling boxes you may have?

Value		Percent	Responses
Yes		66.7%	4
No		33.3%	2

Totals: 6

14. Why not?



A word cloud for question 14. The words are: grey, lot, live, 0, blue, box, put, recycling. The words are arranged in a cluster, with 'grey' and 'lot' at the top, 'live' and '0' in the middle, 'blue' and 'box' below them, 'put' to the right, and 'recycling' at the bottom.

15. Do you have any other suggestions for managing Blue / Grey Box litter on windy days that you would like to share with Niagara Region?



A word cloud for question 15. The words are: heavier, efforts, effective, hope, bags, attached, clear, bins, bin, continue, lid, current, educating, allowing, blow, boxes, blue, box, amp, empty, are, green, recycling, address, collector. The words are arranged in a cluster, with 'lid' and 'boxes' being the largest words in the center. Other words are scattered around them, with 'blue' and 'box' also being prominent.

MEMORANDUM

WMPSC-C 13-2021

Subject: Recycling Centre and Market Update

Date: Monday, February 22, 2021

To: Waste Management Planning Steering Committee

From: Jennifer Wilson, Supervisor, Waste Management

The purpose of this memorandum is to provide members of the Waste Management Planning Steering Committee with an update on market trends and commodity pricing for Blue and Grey Box material processed at Niagara Region's Recycling Centre in 2020.

Key Facts

- The COVID-19 pandemic had an impact on commodity pricing for recyclable material as well as the composition of the incoming material stream at the Recycling Centre.
- In comparison to 2019, there was a significant tonnage decrease in newsprint (-31.5%) which may be attributed to less advertisement by the commercial and retail sector.
- There was a significant tonnage increase in hardpack (28.8%), aluminum cans (17.3%), and PET (18.4%) primarily which may be attributed to more on-line purchases and residents consuming more packaged drinks at home.
- Between October 19, 2020 and December 31, 2020, total incoming recycling tonnage increased 8% (1177 MT) in comparison to the same time period in 2019 due to the implementation of every-other-week garbage collection.
- Overall in 2020, there was a gross budget surplus in revenue for the Recycling Centre of approximately \$146,430.
- The revenue forecast for 2021 is expected to be higher than 2020. Staff have budgeted a 6% increase in revenue in comparison to 2020.

Market Conditions

2020 was a volatile year for commodity pricing. The COVID-19 pandemic had an impact on commodity pricing for recyclable material, specifically the container stream. Due to the economic slowdown that resulted from COVID-19, the demand for oil and gas decreased significantly resulting in plummeting prices for these non-renewable resources. Lower oil and gas prices reduce the cost of manufacturing virgin plastic, thereby, creating a market surplus in recycled plastic due to the lack of demand.

Another contributing factor in pricing was that in August 2020, Evergreen Plastic, a recycling plant in Clyde, Ohio suffered a major fire. The facility is Niagara's primary consumer of recycled Polyethylene Terephthalate plastics (PET). At this facility, recycled post-consumer PET is used to make 100% recycled strapping for packaging goods on pallets. The temporary closure of the facility created a market surplus, thereby reducing the market price of recycled PET. As a result of the temporary closure, baled PET from Niagara Region's Recycling Centre was temporarily stored until the end market resumed operations in November. Pricing for PET hit a 25 plus year low in late summer/early fall of 2020.

The COVID-19 pandemic has also had an impact on the composition of the incoming material stream at the Recycling Centre; specifically with newsprint, hardpack (mix of corrugated cardboard and boxboard), aluminum cans and PET. In comparison to 2019, there was a significant decrease in tonnage for newsprint (-31.5%) and an increase in tonnage for hardpack (+28.8%). This can likely be attributed to an increase in online shopping as a result of residents staying home and reduced print advertising from big box stores and grocery stores. In addition, there was a significant tonnage increase in aluminum cans (+17.3%) and PET (+18.4%). Recovery rates for aluminum cans and PET are typically higher when consumed at home. The increase can likely be attributed to residents staying home more, thus shifting consumption of carbonated beverages from bars, restaurants and gatherings for games and tournaments at parks and sporting facilities.

Increases in tonnages in the latter part of 2020, can also be attributed to the new every-other-week garbage collection contract change. Between October 19, 2020 and December 31, 2020, total incoming recycling tonnage increased 8% (1177 MT) when compared to the same time period in 2019. Table 1 summarizes the change in tonnage for newsprint, hardpack, aluminum cans and PET in 2020 in comparison to 2019.

Table 1 Summary of significant tonnage increases/decreases in 2020 in comparison to 2019.

Commodity Type	2019 Total Tonnes Marketed (MT)	2020 Total Tonnes Marketed (MT)	Difference (MT)	% Change
Newsprint (ONP)	20,711	14,177	- 6,534	- 31.5%
Hardpack (OBB/OCC)	23,683	30,510	+ 6,827	+ 28.8%
Aluminum Cans	554	650	+ 96	+ 17.3%
PET	2,620	3,102	+ 482	+ 18.4%

As indicated in WMPSC-C 17-2018, in 2017 China started to ban the import of solid waste and recyclables into their country. Recycling operations across North America were bracing for a market collapse when China implemented its full ban on the import of recycled fibre on January 1, 2021. The market collapse has not materialized. Since the original announcement, North America and other Asian countries such as India have been planning for this global transition in recycled pulp and board manufacturing. In North America alone, there are 28 expansion projects to boost recovered paper demand, of which, nine (9) have been completed. India and other Asian countries have also made infrastructure investments at their mill to supply mills in China with clean recycled pulp so that they can continue to manufacture boxes and paper.

Financial Impact on Niagara Region

Fibre Revenue

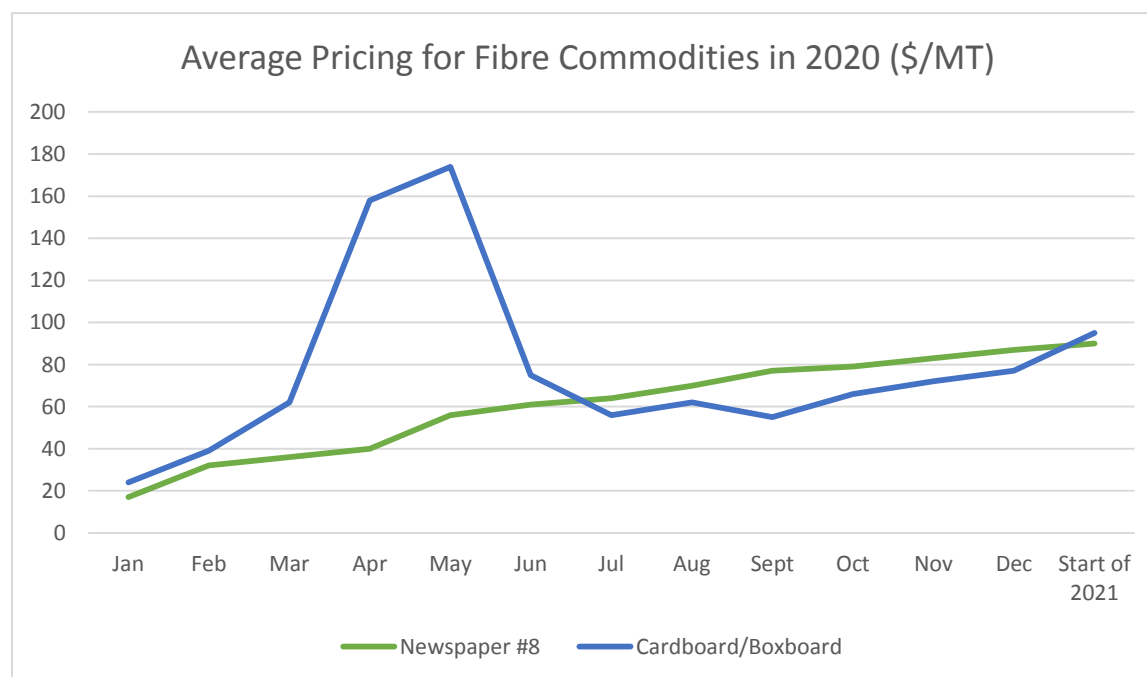
The fibre stream is comprised of the following marketed commodities: newsprint, OCC (from commercial sources), fine paper and hardpack. Table 2 illustrates the three-year average market pricing for the fibre stream.

Table 2 Three-year average market pricing for fibre stream at Niagara Region's Recycling Centre (2018-2020).

Commodity Type	Average Pricing 2018 (\$/MT)	Average Pricing 2019 (\$/MT)	Average Pricing 2020(\$/MT)
Newsprint (ONP)	72	39	55
Cardboard (OCC)	140	88	111
Fine Paper	310	217	181
Hardpack (OBB/OCC)	95	44	73

Pricing for the fibre stream commodities was volatile in 2020. Newsprint pricing hit a 30 year low in January 2020 at \$17/MT and remained weak during the first five (5) months of year before slowly moving upwards to approximately \$87/MT in December. Hardpack pricing ranged from a low of \$24/MT in January to a high of \$174/MT in May before dropping back down to under \$100/MT. At this time, it is anticipated that pricing for fibre commodities will remain strong during the first half of 2021. The pricing at the start of 2021 is approximately \$90/MT for newsprint and \$95/MT for hardpack. Figure 1 illustrates the average price per metric tonne for newsprint and hardpack in 2020.

Figure 1: Average price per metric tonne (\$/MT) for newsprint and hardpack in 2020.



In 2020, there was a gross budget surplus for fibre revenue of approximately \$809,360.

Container Revenue

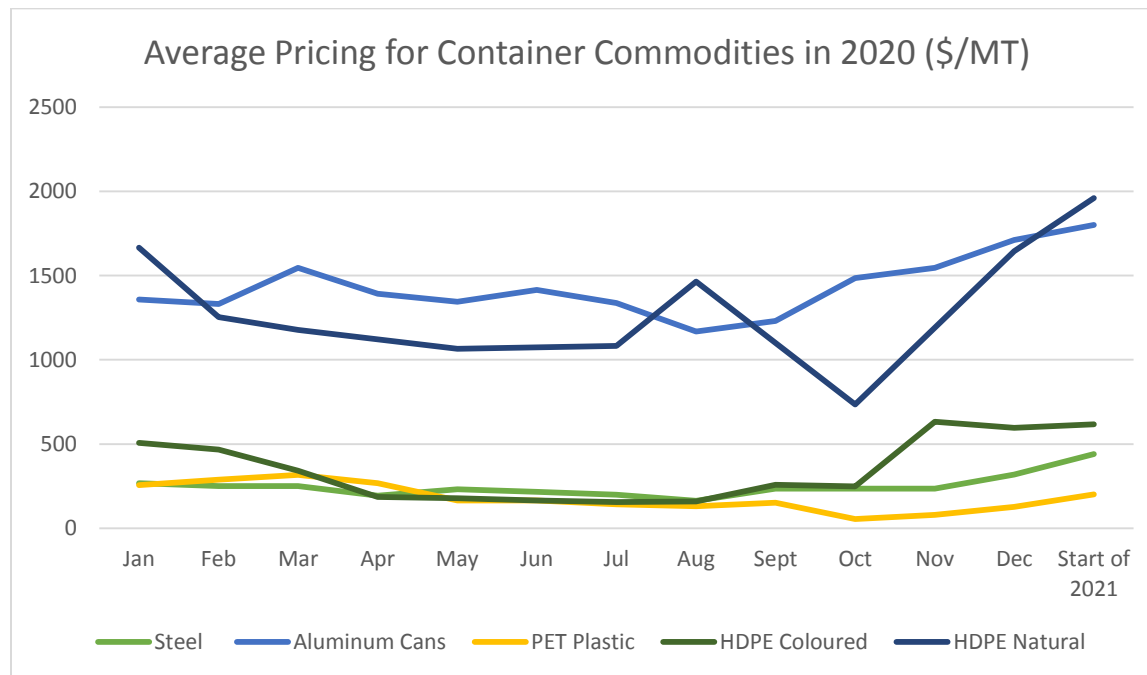
The container stream is comprised of the following marketed commodities: steel, aluminum, Polyethylene Terephthalate (PET) plastics (e.g. water bottles, salad dressing bottles), High-Density Polyethylene (HDPE) plastic (e.g. laundry detergent bottles, shampoo and conditioner bottles), polycoat (e.g. milk or juice cartons), plastic film (e.g. grocery bags), and hi-grade mixed plastics (e.g. containers and lids) and bulky rigids (e.g. plastic furniture). The container stream revenue had significant decreases throughout 2020. Table 3 illustrates the three-year average market pricing for the container stream.

Table 3: Three-year average market pricing for container stream at Niagara Region's Recycling Centre (2018-2020).

Commodity Type	Average Pricing 2018 (\$/MT)	Average Pricing 2019 (\$/MT)	Average Pricing 2020 (\$/MT)
Containers	\$319	\$429	\$394

Pricing for the container stream commodities was volatile in 2020. In early 2020, the pricing for PET was approximately \$300/MT but dropped to \$50/MT by the fall. PET prices have started to rebound and are expected to increase slightly in 2021. Coloured HDPE fell to an 18 year low of \$150/MT in July but rebounded to over \$600/MT in November. Pricing for PET is expected to remain in this range during the first few months of 2021. Natural HDPE fell to \$1100/MT in the spring but rebounded to \$1700/MT in November. Steel pricing fell to \$233/MT but rebounded to \$320/MT in December. Aluminum fell to a low of \$1108/MT before rebounding to \$1800/MT in December. Pricing for natural HDPE, steel and aluminum is expected to remain strong in 2021. Figure 2 illustrates the average price per metric tonne for steel, aluminum cans, PET and HDPE in 2020.

Figure 2: Average price per metric tonne (\$/MT) for steel, aluminum cans, PET and HDPE in 2020.



In 2020, there was a gross budget shortfall for container revenue of approximately \$662,930. Overall in 2020, there was a gross budget surplus in revenue for the Recycling Centre of approximately \$146,430.

Next Steps

Staff will provide a further update to members of the WMPSC in Q3 2021 on the financial outcomes of Q2 2021.

Respectfully submitted and signed by

Jennifer Wilson
Supervisor, Waste Management