



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

**WMPSC 4-2021**

**Monday, August 30, 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](mailto:clerk@niagararegion.ca) at least 24 hours in advance of the meeting.

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## **6. CONSENT ITEMS FOR INFORMATION**

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## **7. OTHER BUSINESS**

## **8. NEXT MEETING**

The next meeting will be held on Monday, October 18, 2021 at 9:00 a.m.

## **9. 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](mailto:accessibility@niagararegion.ca) (email).

# Hazardous and Special Products (HSP)

Waste Management Planning Steering Committee

Monday, August 30, 2021

Andrew Winters, Program Manager, Waste Management Services

# Hazardous Special Products (HSP) Regulation

Waste Management Public Steering Committee

Monday August 30, 2021

# Terminology

- HHW – Household Hazardous Waste
- MHSW – Municipal Hazardous and Special Waste
- HSP – Hazardous Special Products

# Niagara Region HHW Depots

Prior to 2016, Niagara's MHSW program was set up as a mobile monthly collection event, rotating through the various local area municipalities

A permanent MHSW depot has existed at the Niagara Road 12 Landfill site since 1996. Initially, only residents from West Lincoln, Lincoln, Grimsby and Pelham could take their material to this site

In 2014, the Niagara Road 12 site was opened up to all residents of Niagara

In 2016, Niagara Region established permanent HHW depots in Fort Erie, Thorold and Welland

At the Bridge Street Site in Fort Erie, residents are allowed to drop off a portion of MHSW materials including paint, propane cylinders, vehicle batteries and used oil.

# Background - Original MHSW Program

## Phase 1

Started July 1, 2008 with nine materials –paints and coatings, solvents, pesticides, fertilizers (with pesticides), used oil filters, empty oil containers, antifreeze, pressurized containers (refillable and non-refillable), and single-use batteries. The current MHSW Program only manages these nine materials.

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## Phase 2 (2010)

The program expanded to include pharmaceuticals, sharps, rechargeable batteries, fluorescent lamps, mercury thermostats and switches, and fire extinguishers. These items were later removed from the program.

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## Phase 3 (2010)

Further expansion to the program to include corrosives (e.g. drain cleaner), irritants (e.g. dish soap/detergents), ignitables (e.g. fuels), toxics (e.g. metal cleaners/adhesives), and other wastes. These items were also later removed from the program.

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# MHSW Phase 1 – Funding Organizations

Stewardship Ontario was in charge of the program for the first seven years.

In 2015, Product Care Association became the Stewardship organization overseeing and providing funding (through the collection of fees from their members) for paints and coatings, aerosol, and lighting material.

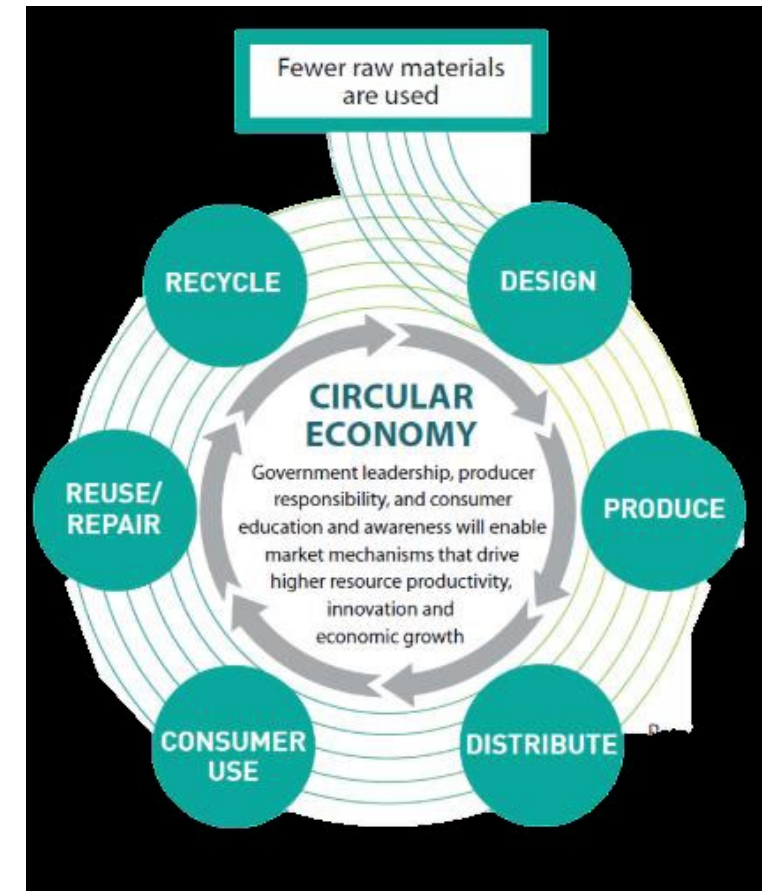
In 2017, Automotive Materials Stewardship Inc. (“AMS”) was approved to be the Stewardship Organization for antifreeze, used oil filters, and oil containers.

Since 2017, over 85% of the funding Niagara Region receives for the operation of MHSW depots come from these two organizations, and the remaining funding coming from SO.

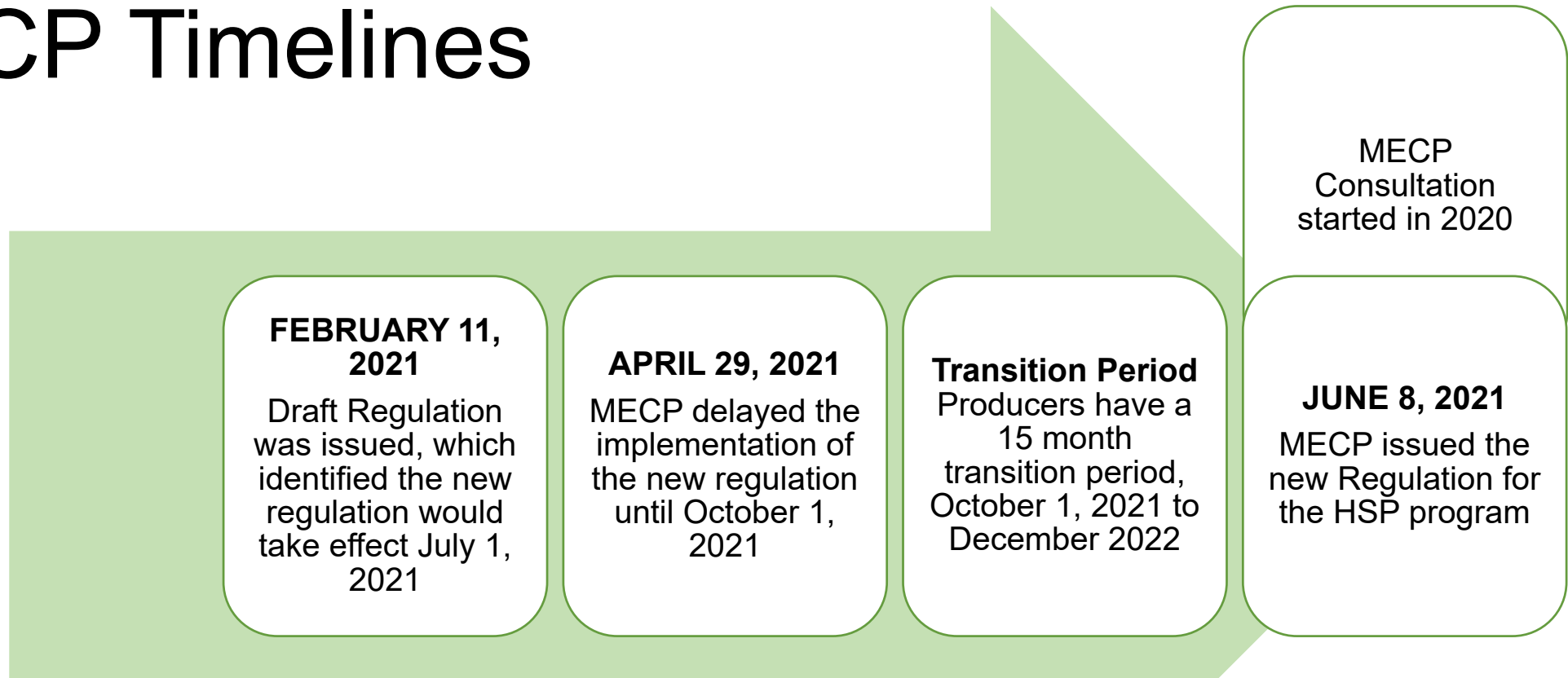


# Ministry of Environment, Conservation and Parks (MECP) – Producer Responsibility Directive

- **On June 28, 2019**, the Minister of the Environment, Conservation and Parks issued a revised wind-up direction indicating that the MHSW Program will continue to operate and meet or exceed the current performance until it ceases operation on June 30, 2021.
- **On July 1, 2021**, the new HSP Regulation was introduced which makes the Producer's responsible for the end of life of these materials, replacing the MHSW Program



# MECP Timelines



# 5 Categories of HSP Regulation

## Category “A” Products

- Non-refillable pressurized containers
- Oil filters

## Category “B” Products

- Antifreeze
- Paints and coatings
- Pesticides.
- Solvents.
- Oil containers.
- Refillable pressurized containers

## Category “C” Products

- Barometers
- Thermometers
- Thermostats

## Category “D” Products

- Fertilizers

## Category “E” Products

- Propane Cylinders

# Producer Requirements for Number of Collection Sites

- Identifies difference between small and large Producers based on number of tonnes put into the marketplace
- Identifies the minimum number of collection sites for large and small Producers
  - The amount of sites required in Niagara Region for large Producers is based on LAM's populations:
    - ❖ Collection of Oil Filters / Oil Containers and Antifreeze
      - Estimated Number of collection sites should be approximately **485 sites**
    - ❖ Collection Sites for Non Refillable Pressurized Containers / Solvents and Pesticides
      - Estimated number of collection sites should be approximately **11 sites**
    - ❖ Collection of Paints and Coatings
      - Estimated number of collections sites should be approximately **17 sites**

# Items Not Covered Under HSP Regulation

## Items Currently Under MHSW Program (will no longer be funded)

- Aerosol container
- Fertilizers
- Insect repellent
- Sanitizers/ disinfectants
- Flammable Organics
- Pool chemicals
- Stuccos and spackling compounds
- Polishes and Waxes
- Caulking and Sealants

## Items Paid for by Niagara Region for Disposal (historically paid by Niagara Region)

- Sharps
- Bases (caustics)
- Organic peroxide
- Vehicle batteries
- Used oil
- Cooking Oil
- Pharmaceuticals
- Acids
- Fire extinguishers

## Light Bulbs (moved to the Electronic Regulations)

- Fluorescent Tubes
- Compact Fluorescent
- Halide Bulbs

# HSP Regulation – Financial Impact

## Potential Cost Savings

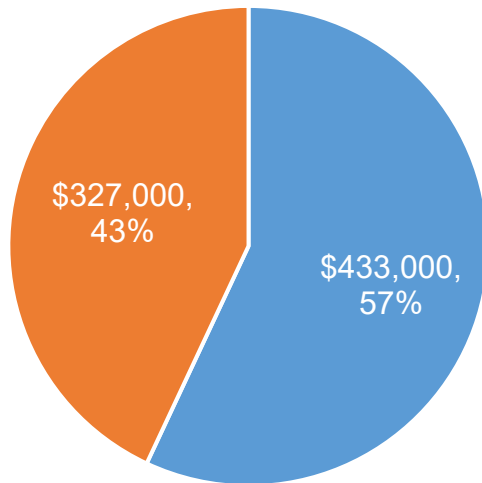
- Mercury and pesticides are now included under the new regulation
  - 2020 Cost to Niagara Region: \$450 on mercury; \$18,700 on pesticides
- Beginning in 2023, Florescent Lights will be covered by the Producers
  - 2020 Cost to Niagara Region: \$36,000

## Potential Increased Costs

- Reimbursements for aerosol cans and fertilizers will likely no longer be received.
  - The cost impact to the Region (\$46,000)
  - There will be potentially addition cost for items that are excluded – cost impacts TBD

# Niagara Region Cost to Operate HHW Depots

Niagara Region 2021 HSP Budget-  
\$760,000



■ Stewardship Funding Programs ■ MHSW Depot Operations

- Under the HSP regulations, if Niagara Region continues to collect the same materials, it is estimated that Niagara Region's annual cost will potentially increase by at least **\$46,000**, or more, if unable to enter into a contract with a PRO for materials (fillable and non-refillable cylinders) that SO currently covers.



# Stewardship Organizations becoming Producer Responsibility Organizations (PRO's)

- Product Care has registered as a PRO and have indicated that they are willing to amend current agreement until the end of the 15 month transition period (December 2022), with the exception that they will no longer be covering the cost of fertilizers
- Automotive Materials Stewardship has registered as a PRO and also want to extend the current contract until December 2022 under the same conditions.
- Stewardship Ontario currently funds the operations of the HHW Depots for \$48,800/ year which will end September 30, 2021.
  - Two PRO's have indicated through Municipal Organizations (AMO/ MWA) that they may cover the items that SO covered but with a different type of cost formula model.
- One PRO has registered for the collection of thermostats but no other mercury products. They would collect at no cost.



# Niagara Region- Moving Forward

## ➤ Short term Strategy July 2021 to December 2022

- Enter into agreements with PRO's for the various products.
  - ❖ Product Care and Automotive Materials Stewardship have both become a PRO
  - ❖ They both would like to amend the existing agreement with generally the same conditions as the current agreement. Funding will remain the same, with the exception of fertilizer no longer being covered by Product Care
- Find a PRO that will cover the items that Stewardship Ontario was funding for Niagara Region
- Continue accepting all materials that are currently accepted through December 2022.
  - ❖ Other municipalities are taking the same approach as Niagara Region and utilizing the transition period to evaluate how to move forward
- Staff will analyze the program and report back to committee in 2022 on a medium and long term strategy

# Questions?

# EPR – Blue Box Authorization to Negotiate with Producers

Waste Management Planning Steering Committee

Monday, August 30, 2021

Sherri Tait, Program Manager, Policy and Planning

# Update on Residential Blue Box Program Transition to Full Producer Responsibility

Waste Management Planning Steering Committee

Monday, August 30, 2021

# Key Dates in Blue Box Transition

Deadline	Description of Task
Sept. 30, 2021	Municipalities register and submit collection information in an Initial Report to the Resource Productivity and Recovery Authority (RPRA)
Oct. 1, 2021	Producers register and submit information to RPRA
Nov.1, 2021	Producer Responsibility Organizations (PROs) must register with RPRA to create rules for the Allocation Table, which identifies the PROs responsible for each municipality.
July 1, 2022	Allocation Table and rules must be submitted to RPRA
August 31, 2022	Municipalities with 2024 transition dates must submit a Transition Report to RPRA with detailed collection information
Jan. 1, 2024	Transition date for Local Area Municipalities (LAMs) in Niagara Region

# Information Required from RPRA

- Niagara Region is waiting on the following from RPRA, which will help inform decision-making and facilitate preparation for transition:
  - Initial Report form and guidelines
  - Confirmation that upper-tier municipalities can report on behalf of the lower-tier municipalities
  - Details about reporting Public Space Recycling Bins (e.g. breaking out seasonal vs permanent collection, inclusion of bins collected by park trucks)

# Information Required from RPRA continued

- Information on how set-out service will be managed
- Confirmation on Blue Box materials to be collected during the transition period and post-transition.

# Negotiation with Producers and PROs

- As Producers and PROs register, organize and work towards completing the Allocation Table for July 2022, it is expected that they will contact Niagara Region
- Potential areas for negotiation with the Producers and PROs include:
  - Provision of collection on behalf of PROs
  - Moving to an earlier transition date



# Negotiation with Producers and PROs continued

- Service for properties not included in the new regulation (e.g. commercial portion of mixed-use properties) and special events
- Management of all or a subset of promotion and education material for the Blue Box Program
- Provision of set-out service
- Management of non-obligated materials currently collected (ex. books, food storage bags, etc.)
- Provision of management of Blue Box material at drop-off depots

# Next Steps for Niagara Region

- Letter to LAM Clerks and Public Works Officials with information on the transition and a request specified collection information
- Inventory of Public Space Recycling Bins
- Follow-up with RPRA on required information
- Initial Report submission to RPRA

# Next Steps for Niagara Region continued

- Participation in industry led webinars and subcommittees related to the Blue Box transition
- Financial and cost benefit analysis on decision points
- Reporting to Council seeking approval to negotiate with PROs and/or bid on collection services
- Completion of MRF Opportunity Review

# Questions?

# Waste Management Tipping Fees

Waste Management Planning Steering Committee

Monday, August 30, 2021

Emil Prpic, Associate Director, Waste Disposal Operations & Engineering

# Waste Management Tipping Fees

Waste Management Planning Steering Committee  
August 30, 2021

# Purpose

- The purpose of this presentation is to provide the results of the 2021 Waste Management Tipping Fee Review and to summarize a competitive pricing structure that is consistent with both public and private sector comparators
- The proposed fee structure is being identified as part of the 2022 Operating Budget process.

# Niagara's Current Waste Management Tipping Fees & Revenues

- **Tipping Fees**

- Minimum Tipping Fee - \$5 / 50Kg
- Per Tonne - \$117

- **Revenues**

- \*Minimum Fee Revenues - \$220K
  - \*Per Tonne Revenues - \$2.8M
  - \*Total Tipping Fee Revenues - \$3.02M
- \*estimated in 2021



# Comparison of 2021 Tipping Fees – Public Sector

**Table 1. Public Sector Comparison**

<b>Municipality</b>	<b>Fee per Tonne</b>	<b>Minimum Fee</b>
Niagara Region	\$117	\$5 / 50Kg
Public Sector		
City of Brantford	\$77	\$10 / 150Kg
Durham Region	\$125	\$5 / 40Kg
Haldimand County	\$132	\$18 / 1000Kg
Halton Region	\$170	\$5 / 50Kg
City of Hamilton	\$122.50	\$10 / 100Kg
Peel Region	\$120	\$6 / 50Kg
City of Toronto	\$161.42	\$16.15 / 100Kg
Waterloo Region	\$85	\$10
Public Sector Average	\$124	\$10.02

# Comparison of 2021 Tipping Fees – Private Sector

**Table 2. Private Sector Comparison**

Location	Fee per Tonne	Minimum Fee
Country Wide Recycling (Hamilton)	\$95	\$30 / load
Future Waste	\$108.22	\$10 / 100Kg
Norjohn Waste and Recycling Drop-off Depot (Halton)	\$172	\$10 / \$58Kg
Walker Environment Group Waste & Recycling Drop-off Depot (Thorold)	\$117	\$11 / load
<b>Private Sector Average</b>	<b>\$123</b>	<b>\$15.25</b>

# Full Cost Recovery

- Full cost recovery components – direct operations, capital and planning & administrative
- Current tipping fee rates fall below cost recovery
- Full cost recovery is achieved at \$134.46 / tonne
- Objective of a multi-year strategy

# Proposed 2022 Tipping Fees

**Table 3.**

<b>Tipping Fee / Material</b>	<b>Current Fee</b>	<b>Municipal Average</b>	<b>Proposed Fee</b>
Minimum Fee	\$5 / 50Kg	\$10.02	\$7 / 50Kg
Per Tonne Fee	\$117 / tonne	\$124 / tonne	\$120 / tonne
Asphalt / Bricks / Concrete	\$10 / tonne	\$93.75 / tonne	\$25 / tonne
Clean Soil (commercial)	\$20 / load	\$109.50 / tonne	\$30 / tonne
Contaminated Soil (commercial)	\$30 / tonne	\$73.75	\$35 / tonne

# Proposed Fee Structure

## Proposed Fee Structure (2022 Waste Management Operations Budget)

- April 1, 2021 implementation
- Rationale – align with comparators, full cost recovery
- Total Revenue Increase - \$230,000
  - Based on 3-Year Historical Average Tonnes/Loads

## Full Cost Recovery Strategy

- Develop full cost recovery strategy and report back to WMPSC in 2022
- Implement over several budget cycles
- Determine planned fee adjustments to achieve full cost recovery, review as part of annual budget process

# Questions?

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## **MEMORANDUM**

**WMPSC-C 26-2021**

**Subject: Alternative Waste Management Technologies Update**

**Date: Monday, August 30, 2021**

**To: Waste Management Planning Steering Committee**

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

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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 whenever there are significant updates.

### **Background**

- An RFP for the completion of Niagara Region's Long Term Waste Management Strategic Plan (LTWMSP) was released in early August 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 collaborating 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 2-2021 – Alternative Waste Management Technologies Update, February 22, 2021.

## 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.

**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"> <li>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 tonnes per year (tpy), for a total of 160,000 tpy.</li> <li>A streamlined Environmental Assessment to increase DYEC's permitted capacity from 140,000 to 160,000 tpy is targeted for submission in fall 2021, for Ministry approval.</li> </ul>
Metro Vancouver Waste-to-Energy (WTEF) and Covanta	EFW	<ul style="list-style-type: none"> <li>Since their organics ban was introduced in January 1, 2015, the Mixed Solid Waste (MSW) processed at the WTEF decreased from 280,000 tpy to approximately 244,500 tpy in 2020.</li> <li>In 2020, the WTEF recovered and sold approximately 6,100 tonnes of ferrous and non-ferrous metals (i.e. aluminum, zinc, brass, stainless steel, and copper).</li> </ul>



Municipality/ Facility	Type of Technology	Update
		<ul style="list-style-type: none"> <li>• In 2020, the WTEF generated 150,625 MWh of electricity; enough to power approximately 16,000 homes per year.</li> <li>• In 2020, the total operating cost for the WTEF was approximately \$22.5 million, and disposal costs were \$3.3 million.</li> <li>• In 2020, Metro Vancouver earned approximately \$5.3 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.</li> <li>• In 2020, the net cost to operate the WTEF was \$69.84 per tonne.</li> </ul>
Halifax Regional Municipality Otter Lake Waste Management Facility	Mechanical Biological Treatment (MBT)	<ul style="list-style-type: none"> <li>• From April 2020 to March 2021, the Otter Lake Facility received a total of 51,511 tonnes of residential waste; of which 43,739 tonnes was landfilled (difference in tonnage includes metals, papers and pop bottles, which were recovered).</li> <li>• Total operating costs for the Otter Lake Facility during this period were \$6.9 million.</li> <li>• The status of the Otter Lake Facility was under review, relative to a motion from Halifax Regional Council in 2014.</li> <li>• Subsequently, a recommendation approved by Council on July 20, 2021 directs staff to work with the facility operator to submit an application to Nova Scotia Environment to deactivate the Front End Processor (FEP) and Waste Stabilization Facility (WSF) at the Otter Lake Waste Management Facility.</li> </ul>

Municipality/ Facility	Type of Technology	Update
City of Toronto Dufferin Biogas Utilization Project	AD	<ul style="list-style-type: none"> <li>• The City of Toronto, in collaboration with Enbridge Gas Inc. (Enbridge), is installing biogas-upgrading equipment at the Dufferin Solid Waste Management Facility.</li> <li>• 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.</li> <li>• Once in the grid, the City will be blending the RNG with Natural Gas to create a low-carbon fuel blend that will be used to power its waste collection trucks and other vehicles and heat City buildings and facilities.</li> <li>• 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.</li> <li>• 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.</li> <li>• The first green molecule of RNG from the Dufferin facility is expected to start flowing in mid-August 2021.</li> <li>• The total project cost for the Dufferin Biogas Facility is estimated to be \$16.3 million.</li> <li>• The next facility to receive RNG infrastructure will be the Disco Road Organics Processing Facility, which is expected to process 75,000 tonnes of organics per year, and produce approximately 4.6 million cubic metres of RNG per year, by the end of 2023.</li> </ul>

Municipality/ Facility	Type of Technology	Update
		<ul style="list-style-type: none"> <li>The City has also identified other potential RNG production opportunities, for consideration, at two of its landfill sites (Green Lane and Keele Valley).</li> <li>A feasibility study is currently underway for the Green Lane Landfill to identify the best opportunity for landfill gas utilization with RNG being a top contender. At this time, a cost per tonne is not available.</li> <li>Through these four (4) sites, it is estimated that the City could produce approximately 65 million cubic metres of RNG per year – the equivalent in GHG emission reductions of taking 35,000 cars off the road for a year.</li> </ul>

**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 Enerkem Alberta's Waste-to- Biofuel and Chemical Facility	Gasification, Cleaning and Conditioning of Syngas, Catalytic Synthesis and Product Purification	<ul style="list-style-type: none"> <li>There is nothing new to report on this facility since the previous update.</li> </ul>

## b) Proposed P3 Facilities

Municipality	Type of Technology	Update
Durham Region	MWP and AD	<ul style="list-style-type: none"> <li>• Durham released an RFP on August 9, 2021 for the Design, Build, Operate and Maintenance (DBOM) of the Region's new Mixed Waste Pre-Sort and AD facility.</li> <li>• The facility is planned to begin operating in 2024.</li> <li>• The facility is anticipated to divert approximately 30,000 tonnes of organics from the DYEC, annually.</li> <li>• The facility is anticipated to generate approximately 4 million cubic metres of RNG by capturing methane that would otherwise be released into the environment.</li> <li>• The facility is estimated to have a capital cost of \$204M, and an annual operating cost of \$30M.</li> <li>• The estimated cost per tonne is \$150.</li> </ul>

**Table 3 – Summary of Privately-Owned Facilities**

Facility	Type of Technology	Update
Escarpment Renewables Bio Digester, Grimsby	AD	<ul style="list-style-type: none"> <li>• The facility is fully operational and is generating 1.0 MW of green electricity per day, using the biogas that is produced.</li> <li>• All equipment installed (i.e. pasteurization, contaminant removal, receiving tanks) has been commissioned and is fully operating.</li> <li>• The facility processes food waste and various liquid waste feedstocks, such as sugar waters, fats, oils and grease, and dissolved air flotation sludge.</li> </ul>

Facility	Type of Technology	Update
		<ul style="list-style-type: none"> <li>The digestate produced is a Canadian Food Inspection Agency-certified fertilizer, and Escarpment Renewables has commenced with hauling the digestate off site, for land application.</li> </ul>
Southern Alberta Energy from Waste Association (SAEWA)	EFW	<ul style="list-style-type: none"> <li>In June 2021, SAEWA authorized its project engineer, HDR, to issue an REOI for an EFW project development partner.</li> <li>SAEWA's objective is to find a partner to move forward with development of an EFW facility at the preferred site location at the County of Newell Landfill.</li> <li>SAEWA is in the final planning stages of developing an EFW facility that will handle the conversion of municipal and other sources of solid waste into energy.</li> </ul>

## Municipal MWP Working Group

The Municipal MWP Working Group, which Niagara Region is currently a member of, meets to discuss and share information on various municipal MWP initiatives. The Municipal MWP Working Group previously met, as a group, in December 2017. The next meeting has been tentatively scheduled in Q4 2021.

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

### i) London:

- As part of London's 60% Waste Diversion Action Plan, Council approved the direction to proceed with a pilot project for MWP for waste collected from a portion of London's multi-residential buildings. City staff are currently working on current opportunities and alternative plans for Council's consideration.
- Research at London's Waste to Resources Innovation Centre (WRIC), including the Natural Sciences and Engineering Research Council of Canada's (NSERC)

Industrial Research Chair Thermochemical Conversion of Biomass and Waste to Bio-industrial Resources administered by Western University (2019) has been under way since 2015. Academic research, laboratory and bench scale testing, and field work ranges from feedstock handling to material quality through to technologies and end market products (e.g., mechanical recycling, chemical recycling, material conversion, alternative low carbon fuel, solid recover fuel, etc.).

- As part of London's WRIC, the City has a non-binding Memorandum of Understanding (MoU) with Green Shields Energy (GSE) until December 31, 2022. The MoU sets out the short-term objective of collaboration between the City and GSE to undertake testing and develop data/information on the viability of Hydrogen Reduction technology to manage various non-hazardous waste streams including household garbage. This research has the potential to move to constructing and operating a demonstration scale facility containing a Hydrogen Reduction unit designed for demonstrating the effectiveness of the process on the conversion of various non-hazardous wastes.
- In late October 2019, London launched their two-year Hefty EnergyBag Pilot Project at 13,000 homes, in nine (9) 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
- London's Hefty EnergyBag Pilot Project (for hard-to-recycle plastic items that are currently placed in the garbage) proceeded as planned until March 2020. A number of adjustments were made to address operating through the pandemic, including delaying measurement studies and postponing expansion until a clearer picture was available. Revisions were launched in July 2021. The Pilot Project will carry on into 2022.
- This project includes working with a number end markets and advanced resource recovery technologies.
- On April 20, 2021, staff submitted an *Update on Resource Recovery Strategy, Including Mixed Waste Processing* to their Civics Works Committee. The following recommendations of this report were approved:

1. this report **BE RECEIVED** for information;

2. the Civic Administration **BE DIRECTED** to take no further action on the Unsolicited Proposal dealing with mixed waste processing; and
3. the Civic Administration **BE DIRECTED** to develop details and a background business engagement document to initiate a two-step public procurement process (Request for Qualifications followed by a Request for Proposals) for a resource recovery facility or facilities (including mixed waste processing, mechanical biological treatment and waste conversion technologies), pilot project or commercial scale, and report back to Civic Works Committee by December 2021 with details on how the process will occur; it being noted that Civic Administration already have direction to examine the potential for small scale, demonstration facilities for resource recovery facilities as part of the London Waste to Resources Innovation Centre, subject to Municipal Council approval.

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:**

- An RFP for the DBOM of an AD facility (Peel Renewable Natural Gas Centre) to process Peel Region's Green Bin organics was completed in the spring of 2021.
- It will provide 90,000 tonnes per year of organics processing capacity, which considers Peel Region's Green Bin program expansion and population growth.
- The results of the RFP were presented to Council at its July 8, 2021 meeting. Council directed staff to cancel the procurement without award. As a result, Peel Region staff will need to develop a new plan for organics processing.
- 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 closed on February 8, 2021.
- Peel Region staff reached out to other municipalities to discuss potential partnering opportunities for the MWP Pilot Project.

- Niagara Region expressed an interest in participating in this MWP Pilot, including potentially contributing tonnages.
- Peel Region staff will be reporting back to WMSAC with their findings and recommended next steps pertaining to project timing, scope, costs, risks, outcomes, and options for procurement of a MWP Pilot Project.

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 (2) 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 is currently pursuing the necessary Official Plan and zoning designations.
- Simcoe County is in the midst of updating their Solid Waste Strategy.

v) **Toronto:**

- In March 2020, Solid Waste Management Services staff took the *MWP Study Update* report to the Infrastructure and Environment Committee, which was referred to Toronto City Council, for consideration.
- The report indicated that the \$310 million initially anticipated as the cost for a MWP facility in the City of Toronto's Long Term Waste Management Strategy is sufficient for a facility with a capacity of 270,000 tonnes per year. This assessment was derived from a rough order-of-magnitude costing exercise for a facility that includes a front-end sorting component for separation and capture of recycling and organic fractions, followed by organics contaminant removal and an anaerobic digester to process the organic fraction.
- The operating cost was estimated at \$16.9 million per year or about \$63 per tonne. This does not include revenues from the sale of materials or renewable natural gas (RNG). These costing estimates were derived using industry-standard costs. Further analysis will be necessary to determine specific technology costs and to refine the estimate for effective planning.
- In September 2020, Toronto City Council adopted the following motions for this report:



1. City Council direct the General Manager, Solid Waste Management Services to consider future work on the development of a mixed waste processing facility, with or without a thermal treatment process, where the overarching goals are maximizing resource recovery through reduce, reuse, recycle, energy recovery then residual disposal, minimizing the dependence on long term landfill use all while ensuring the financial sustainability of the Solid Waste Management Services program.
  2. City Council direct the General Manager, Solid Waste Management Services to report back to the Infrastructure and Environment Committee no later than the end of 2023 with a business case, including a triple bottom line analysis (environment, social and financial) and a utility rate impact assessment on the mixed waste processing of waste with and without thermal processing compared to increased reduction and diversion and traditional landfilling.
  3. City Council direct the General Manager, Solid Waste Management Services to pursue potentially applicable Federal Government, Provincial Government, and non-profit organization funding opportunities to assist in implementing Parts 1 and 2 above and to negotiate and enter into all necessary agreements to receive any available funding in a form satisfactory to the City Solicitor.
- Solid Waste Management Services staff will continue to research the topic and have committed to reporting back to City Council with updated findings by the end of 2023.

vi) **Waterloo Region:**

- Waterloo Region is continuing to monitor the activities of larger municipalities with respect to alternative technology initiatives.

vii) **York Region:**

- York Region issued an RFP to procure contracted AD processing services at a privately-owned facility on June 7, 2021, which closes on September 30, 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” Update**

- On June 3, 2021, the Minister of the Environment, Conservation and Parks (MECP) announced the finalization of the new Blue Box Regulations.
- Details of the final Blue Box Regulations (O. Reg. 391/21) were provided at the June 28, 2021 WMPSC meeting, and included in PWC-C 24-2021, July 13, 2021.

## **Provincial “Food and Organic Waste Policy Statement” Update**

- The Food and Organic Waste Policy Statement, which was issued by the MECP on April 30, 2018, establishes the following targets and timelines for residential organics management in Ontario:
  1. Larger municipalities, including Niagara Region, need to implement an organics management program that will achieve at least a 70 per cent waste reduction and resource recovery of food and organic waste generated by single-family dwellings in urban settlement areas by 2025.
  2. Multi-residential buildings need to implement an organics management program that will achieve at least a 50 per cent waste reduction and resource recovery of food and organic waste by 2025.
- Additional guidance will be provided by the Province to municipalities in the coming months regarding implementation of the Food and Organic Waste Policy Statement.

Staff will continue to provide reports to Committee with further updates on any Provincial legislative changes.

## **Summary/Conclusions**

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

- The decision was made to monitor EFW, but not to implement at this time (Waterloo, Simcoe);
- The decision was made to focus on organics (AD) diversion (Durham, Oxford, Simcoe, Peel and York);
- EFW technology was not included, as part of London’s long-term waste strategy. However, City staff will be developing a background business engagement document to initiate a two-step public procurement process (RFQ followed by a

RFP) for a resource recovery facility or facilities (including MWP, MBT and waste conversion technologies) pilot project or commercial scale, and report back to Civic Works Committee by December 2021 with details on how the process will occur;

- Toronto will be considering MWP, with or without 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

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

**MEMORANDUM**

**WMPSC-C 30-2021**

**Subject: Councillor Information Request**

**Date: Monday, August 30, 2021**

**To: Waste Management Planning Steering Committee**

**From: Catherine Habermehl, Director, Waste Management Services**

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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: June 28, 2021**

**Minute Item #3.1:**

Provide information respecting the cost per household of the 9.98% budget planning strategy. Councillor Witteveen.

**Follow-up Action:** This information is being prepared by Corporate Services team, and was included in the August 20, 2021 Councillors Weekly Correspondence.

**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. A memorandum with an update is submitted as part of the August 30, 2021 Waste Management Planning Steering Committee meeting package.

**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 Negotiated Request for Proposal is being finalized with a targeted release in October 2021. The most recent project update is contained in PW 28-2021 which was submitted to the June 15, 2021 Public Works Committee meeting.

**Status:** In progress

**Public Works Committee**

**Meeting Date: July 13, 2021**

**Minute Item #5.3:**

Councillor Foster requested staff follow up with the Town of Lincoln respecting the pilot project that was undertaken for recycling box covers.

**Follow-up Action:** Regional staff have reached out to the Town of Lincoln to discuss a possible pilot.

**Status:** In progress

**Minute Item #7.2:**

Councillor Steele advised of issues related to seasonal cottage owners placing waste out for collection on the wrong collection week due to unfamiliarity with the changes to every other week waste collection. Catherine Habermehl, Director, Waste Management Services, noted that the cottage associations have previously assisted with communicating these types of changes and advised that staff would consider ways to ensure cottage owners were aware of the collection changes.

**Follow-up Action:** Staff will work with local area municipalities and with cottage associations to communicate the every-other-week garbage collection schedule with their members. Staff are currently in the process of developing communication that can be shared through these associations to inform property owners of waste collection changes and direct them to the Niagara Region Waste App and online tool to find the collection schedule for their property. It should be noted that educational materials were previously delivered to these property owners as part of the launch of the new collection services in 2020.

**Status:** Complete

**Meeting Date: January 12, 2021**

**Minute Item #8.5:**

Councillor Insinna requested information respecting the investigation of illegal dumping incidents, including staff time and outcomes. Bruce Zvaniga, Interim Commissioner, Public Works, advised that staff would provide a report at a future Public Works Committee meeting.

**Follow-up Action:** WMPSC-C 10-2021 which was provided to WMPSC at the February 22, 2021 meeting and WMPSC-C 18-2021 as part of the April 19, 2021 WMPSC meeting package. Both of these information memorandums were provided to Councillors through the Weekly Correspondence on June 11, 2021.

**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 implementation of the new collection contracts, the pandemic and related redeployment of staff, this project was paused. This work is anticipated to be completed in the summer 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

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

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

**Status:** In progress

### **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: February 22, 2021**

#### **Minute Item #8:**

Councillor Ugulini requested staff undertake further communication plans to reinforce contact information to report incidents of illegal dumping.

### **Public Works Committee**

**Meeting Date: January 12, 2021**

#### **Minute Item #4.1:**

Consider conducting a survey for resident satisfaction on the new campaign. Councillor Nicholson.

Consider focused campaigns for illegal dumping hot spots. Councillor Foster.

Provide information respecting sites frequently used for illegal dumping throughout the region. Councillor Foster.

Connect with staff at the City of Niagara Falls and the City of St. Catharines respecting Regional support for illegal dumping incidents in their respective municipality. Councillors Diodati and Sendzik.

**Minute Item #7:**

Provide information to the Waste Management Planning Steering Committee respecting the Waste Management Strategy RFP (PWC-C 2021). Councillor Zalepa.

**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.

**Meeting Date: September 8, 2020**

**Minute Item #3.1:**

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

**Minute Item #5.3:**

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

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

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

Respectfully submitted and signed by

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Catherine Habermebl  
Director, Waste Management Services



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**MEMORANDUM**

**WMPSC-C 31-2021**

**Subject: Nespresso Coffee Capsule Pilot – Update**

**Date: Monday, August 30, 2021**

**To: Waste Planning Steering Committee**

**From: Lucy McGovern, Program Manager**

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The purpose of this memorandum is to update members of the Waste Management Planning Steering Committee (WMPSC) on the matter respecting the approved recommendation from the WMPSC meeting held on August 26, 2019 directing staff to meet with Nespresso Canada to consider implementing the Nespresso “Green Bag” pod recycling program as part of Niagara’s curbside recycling program.

Since the WMPSC committee meeting held in August 2019, staff discussed the details of a possible pilot program with Nespresso Canada. Unfortunately, with two WMPSC meetings cancelled in 2019/2020, due to lack of quorum and the COVID-19 pandemic, staff have not reported back on this subject matter.

On June 3, 2021 the Government of Ontario finalized the Blue Box Regulation under the Resource Recovery and Circular Economy Act, 2016, requiring producers to establish, operate and fund residential Blue Box collection and processing systems. The new responsibility framework and collection model in Niagara will be determined over the next two years and will be initiated on January 1, 2024. Coffee pods may be included in the list of Blue Box designated materials under the new Blue Box regulation, O. Reg. 391/21. The list of designated materials is not expected to be finalized until July 2022. The Resource Productivity and Recovery Authority (RPRA) was created by the Government of Ontario to support the transition to a circular economy and a waste-free Ontario. The RPRA is not recommending that municipalities make any changes to the Blue Box program during the program transition period.

Based on the expected changes to the Blue Box program as the province moves to an Extended Producer Responsibility model and the request to maintain existing Blue Box program levels until the formal transition to producers occurs in 2024, Niagara Region will not be moving forward with the Nespresso coffee pod pilot program.

Respectfully submitted and signed by

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Lucy McGovern  
Program Manager

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**MEMORANDUM**

**WMPSC-C 32-2021**

**Subject: Niagara Road 12 Landfill Citizens Liaison Committee Meeting  
Notes March 25, 2021**

**Date: Monday August 30, 2021**

**To: Waste Management Planning Steering Committee**

**From: Andrew Winters, Operations Manager**

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The Niagara Road 12 Landfill Citizens Liaison Committee (CLC) meeting took place on Thursday March 25, 2021, at 7:00 pm. The meeting notes are attached as Appendix A.

Respectfully submitted and signed by

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Andrew Winters  
Operations Manager

Appendix A - Niagara Road 12 CLC meeting notes of March 25, 2021

**WASTE MANAGEMENT SERVICES DIVISION**  
**CITIZENS LIAISON COMMITTEE (CLC)–NIAGARA ROAD 12 LANDFILL SITE**

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Notes of a meeting of the Niagara Road 12 Landfill Citizens Liaison Committee held via Zoom on March 25, 2021 commencing at 7:00 p.m.

**ATTENDANCE**

Committee: Ken Durham - Chair  
Peter Forsberg  
Brian Jaworsky  
Victor Dirksen  
Councillor Bob Hildebrandt, Town of Pelham  
Councillor Greg Reimer, Town of Lincoln  
Councillor William Reilly, Town of West Lincoln  
Councillor Randy Vaine for Mayor Jeff Jordan, Town of Grimsby

Regrets: Robert Lee

Staff: Andrew Winters, Program Manager, Waste Disposal Operations  
Emil Prpic, Associate Director, Waste Disposal Operations & Engineering  
Mariano Singzon, Supervisor, Waste Disposal Operations  
Sandy Sawatzky, Waste Management Clerk/Program Administrator

**1. Distributed at meeting:**

Agenda  
Minutes for December 10, 2020 meeting

**2. Approval of Agenda:**

- The agenda was accepted and the meeting was called to order at 7:05 pm.
- Committee members approved

Moved by: consensus  
Seconded by: consensus

Carried.

**3. Approval of Minutes from December 10, 2020:**

Moved by: Peter Forsberg  
Seconded by: Robert Hildebrandt

Carried.

#### 4. Business Arising from previous meeting:

- Committee member identified a missed word in section 5 of the December 10, 2020 minutes regarding a comment for Draft TOR. "Incineration" should replace first "etc."

#### Change to December 10, 2020 minutes (updated):

#### 5. Draft Terms of Reference (TOC) for CLC

Minutes read:

- Comments from committee
  - last paragraph of article 1 add **incineration** before "etc.". Would like to see it in there for future reference, "etc. be added before etc.

Replace with:

- last paragraph of article 1 add **incineration** before etc. Would like to see it in there for future reference, "incineration" be added before etc.

Moved by: Peter Forsberg

Seconded by: Robert Hildebrandt

Carried.

#### 6. Draft Terms of Reference (TOC) for CLC

- A draft Terms of Reference was distributed at the December 10<sup>th</sup>, 2020 CLC meeting and members were asked to send any comments/proposed changes to Niagara Region staff within 2 weeks.
- At the December meeting a member requested that "incineration" be included as part of the Terms of Reference, however in the two week period after the meeting a different member disagreed and believe it is not part of the mandate of the Committee.
- At the March 25<sup>th</sup>, 2021 CLC meeting, this topic was discussed again with the entire committee, and it was concluded that "incineration" was not within this Committee's mandate and would not be included in the Terms of Reference.
- Terms of Reference was updated to reflect all comments and decisions from the Committee. The updated Terms of Reference will be sent to the Committee for final review following the March 25<sup>th</sup>, 2020 meeting with the intent to finalize and approve at the next meeting.

**Action:** Niagara Region to send out Terms of Reference to Committee within one week following the meeting.

## 7. Impact of COVID-19 on Landfill Operation

- Staff reports:
  - Procedures that were implemented for COVID-19 have remained in place, including limiting the number of vehicles at the Residential Drop-off Depot to allow for proper social distancing. The impact of these procedures is increased wait time and line-ups, however site users have become accustomed to the process. Niagara Region has implemented a procedure specific to brush and leaf & yard waste drop-off that allows residents to bypass the scales and reduce queuing at the scalehouse.
  - Increased traffic and longer line-ups were seen at the site this past weekend, due to warmer weather and the beginning of spring cleaning. Vehicles in line before close (4 p.m.) on Saturday were allowed into the site, with all residents vacating the site by 5 p.m.
  - All staff and contractors working on site are required to do daily COVID-19 screening before they are allowed to work on site.
  - Landfill staff have noticed that residents are very understanding of the new procedures in place and for the most part are respecting rules and social distancing.
  - The daily volume of traffic throughout the pandemic has not changed, compared to average daily vehicles counts before the pandemic.
  - Niagara Region uses various media platforms, including social media and a portable road sign, to notify the public of increased wait times during the spring months.
  - Committee member asked for clarity surrounding which days experienced increased traffic and wait times:
    - Tuesdays and Saturdays are historically the busiest days (average 400-500 vehicles on Tuesday, average of 500 vehicles on Saturday). The busiest time of day is typically 10 am, - 3 p.m.
  - Niagara Region is exploring alternative technologies to inform residents of wait times, such as an app or website that displays current wait times or a livestream of lineups at the site.
  - Committee members questioned how many vehicles are allowed onsite at a time.
    - A maximum of seven (7) vehicles at a time are allowed at the Drop-Off Depot (DOD) to maintain physical distancing. The number of vehicles at the brush and L&Y

waste are also limited to ensure social distancing can be maintained.

## **8. Summary Landfill Operations**

- A comparison of 2020 to 2019 tonnages of various recycled material was distributed to the Committee. This handout can be found in Appendix "A" of the meeting note.
- Key items of note from the comparison:
  - The mattress program began mid-way through 2019, which accounts for the significant change in mattress tonnages seen between 2019 and 2020.
  - Total waste tonnages remain relatively consistent but do fluctuate slightly from year to year. A small decrease of 826 was seen between 2019 and 2020. For the past 5 years, total waste has remained fairly consistent between 16,500 to 17,500 tonnes.
  - Committee members asked for a clarification surrounding increase in tonnage for tires and whether this is related to the new regulations that allow tires with rims to be accepted? Is there any value in removing the rims and placing the rims in the scrap metal bin to potentially generate revenue?
    - The current contractor on site operating the landfill/ drop off depot is not set up to remove tires from rims. The additional cost to the contractor to remove the rims would not be offset by any potential increase in revenues. Currently, it is the responsibility of the processor of tires (the facility that the tires are hauled to) to remove the rims before processing.
  - Committee member asked if Every Other Week (EOW) collection has had an impact on Landfill
    - There is not enough data to identify the complete impact of EOW waste collection on the landfill, but there has been a decrease in waste tonnages compared to the previous year. An increase in organics numbers since EOW collection has also been seen, which was anticipated and is a reflection that more organics are being removed from the waste stream.

## **9. Update on Capital Projects for 2020**

- Pump Station Upgrades
  - Completed. A chemical building was added to minimize odors in leachate as it goes through the force main to Grimsby Waste

Water Treatment Plant. Working with Water Waste Water (WWW) to determine impact going into Grimsby.

- Drop off Improvements
  - Capstone replacement at the Residential Drop-off Depot was completed last fall with the replacement of approximately 45 cap stones on the retaining wall and 10 curbstones.
- Scale house addition
  - Completed. Work included the extension of the scalehouse to include a lunch room and additional storage space. An additional ramp was added to the project, to allow for increased staff safety when accessing the scalehouse.

## **10. Curbside Collection Contract update**

- Bi-weekly garbage collection
  - Operations by new contractors appear to be running seamlessly. Niagara Region staff are receiving few complaints from the public about the Curbside Pickup Program.
  - Niagara Region anticipates that moving to every other week waste collection will result in a reduction in waste volumes at the Niagara Road 12 site, as well as the Humberstone site.
  - New collection contractors are doing well at the site. New vehicles being used which allows for smooth delivery and tipping at the landfill. There is a significant improvement from previous contractors.
  - Committee members echo positive sentiments towards new contractors, with positive experiences with promptness and professionalism.

## **11. Other Business**

- Committee member has been approached by “Green Team”, a community organization that arranges the clean-up of litter in neighbourhoods. Is there an opportunity to partner with Niagara Region to dispose of the waste at the landfill?
  - In the past, organizations who make proper arrangements can drop off litter collected at the landfill at no charge. The organizer can contact Niagara Region in advance, with the appropriate details to make arrangements.

## **12. Next Meeting**

- Next meeting June 17, 2021.



**13. ADJOURNMENT:**

- The meeting adjourned at 8:08pm.

Moved by: Peter Forsberg  
Seconded by: Robert Hildebrandt

Carried

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**MEMORANDUM**

**WMPSC-C 27-2021**

**Subject: Q2 Recycling Centre and Market Update**

**Date: Monday, August 30, 2021**

**To: Waste Management Planning Steering Committee**

**From: Jennifer Wilson, Supervisor, Waste Management Services**

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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 from January to June 2021.

**Key Facts**

- Demand for recycled plastics has increased due to consumer brands using more recycled polyethylene terephthalate (PET) in their packaging.
- A rise in e-commerce and a shortage in cardboard generation by Industrial, Commercial & Institutional (IC&I) sector has lead to an increase in the demand for recovered paper.
- There was a significant decrease in tonnage for newsprint (-22.1%), and a significant increase in tonnage for hardpack (mix of corrugated cardboard and boxboard) (+17.4) and aluminum cans (+16.6%).
- Between January 1, 2021 and June 30, 2021, total incoming recycling increased 4.7% (1,614 MT) when compared to the same time period in 2020.
- It is anticipated that market pricing will continue to remain strong for most commodities for the remainder of 2021.
- As of the end of Q2 2021, it is estimated based on current market conditions, that there will be a gross budget surplus in revenue for the Recycling Centre in 2021 of approximately \$5.54 million dollars (\$2.94 for fibre stream and \$2.6 for container stream).

## Market Conditions

In 2021, the demand for recycled plastic has increased due to an increase in demand for recycled PET by consumer brands, and also due to service disruptions in the global supply chain for virgin resin. In February 2021, Texas experienced a historic weather event which crippled the state's power grid leading to the temporary closure of manufacturing facilities. This created a shortage in the supply chain for virgin resin, thereby increasing the demand for recycled plastics. In addition, some Material Recovery Facilities' (MRFs) in the US also experienced issues staffing their facilities due to issues related to the COVID-19 pandemic which resulted in less output. This is further compounding the lack of supply available for processors. It should be noted that packaging has been continuously evolving over time as brand owners work to improve their environmental footprint by developing more sustainable packaging and incorporating higher percentages of recycled content in their manufacturing process.

In regards to the fibre markets, the COVID-19 pandemic has resulted in a rise in e-commerce due to changes in consumer behaviour (i.e. online shopping). As businesses closed or reduced their operations, the amount of cardboard generated by IC&I sector was reduced thereby creating a shortage of recovered fibre available to producers for manufacturing products. Due to shortage, producers that consume corrugated cardboard (OCC) have been supplementing their inputs with mixed paper to produce finished products. As such, the demand for recycled paper has increased.

As indicated in WMPSC-C 13-2021, the COVID-19 pandemic continues to have an impact on the composition of the incoming material stream at the Recycling Centre; specifically with newsprint, hardpack, and aluminum cans. Although newsprint tonnages have been in decline over the past several years, the pandemic accelerated the rate of decline as big box stores reduced their print advertising and increased their online advertising. In comparison to the first half of 2020, there was a significant decrease in tonnage for newsprint (-22.1%), and a significant increase in tonnage for hardpack (+17.4) and aluminum cans (+16.6%).

Between January 1, 2021 and June 30, 2021, total incoming recycling tonnage increased 4.7% (1614 MT) when compared to the same time period in 2020. Increases in tonnages can be attributed to a number of factors, however, the change to every-other-week garbage collection had a significant impact. Table 1 summarizes the change in tonnage for newsprint, hardpack and aluminum cans during the first half of 2021 in comparison to 2020.

Table 1: Summary of significant tonnage increase/decreases during the first half of 2021 in comparison to 2020.

<b>Commodity Type</b>	<b>2020 Total Tonnes Marketed Jan-Jun (MT)</b>	<b>2021 Total Tonnes Marketed Jan-Jun (MT)</b>	<b>Difference (MT)</b>	<b>% Change</b>
Newsprint (ONP)	7579	5904	-1675	-22.1%
Hardpack (OBB/OCC)	14196	16672	+2476	+17.4%
Aluminum Cans	277	323	+46	+16.6%

## Financial Impact on Niagara Region

### Fibre Revenue

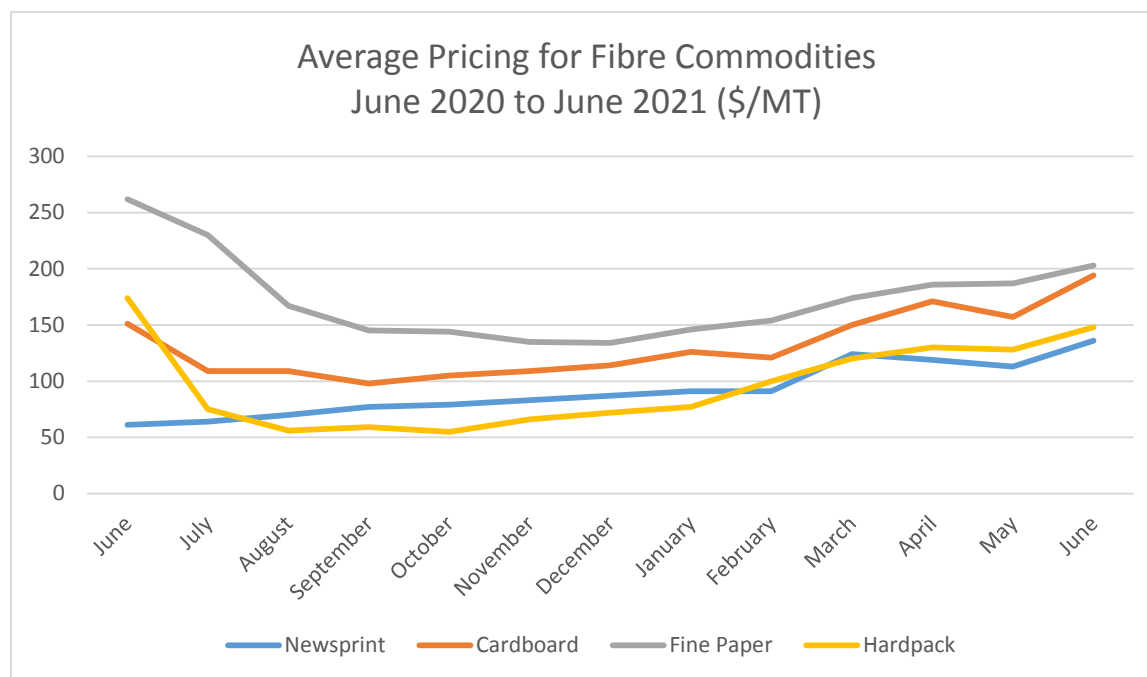
The fibre stream is comprised of the following marketed commodities: newsprint, corrugated cardboard (from commercial sources), fine paper and hardpack. Table 2 provides a comparison of the budgeted revenue per MT versus actual revenue per MT for fibre stream commodities.

Table 2: Comparison of budgeted versus actual revenue for fibre stream at Niagara Region's Recycling Centre (January to June 2021).

<b>Commodity Type</b>	<b>2021 Budget (Avg. \$/MT)</b>	<b>2021 Actuals January to June (Avg. \$/MT)</b>	<b>2021 Variance (Budget vs. Actual)</b>
Newsprint (ONP)	\$81	\$113	+39.5%
Cardboard	\$103	\$157	+52.4%
Fine Paper	\$148	\$175	+18.2%
Hardpack (OBB/OCC)	\$66	\$120	+81.8%

Pricing for the fibre stream commodities increased steadily in the first half of 2021. It is anticipated that market pricing will continue to remain strong throughout 2021. Figure 1 illustrates the average price per metric tonnes for fibre stream commodities between June 2020 to June 2021.

Figure 1: Average price per metric tonne (\$/MT) for fibre commodities between June 2020 and June 2021.



In 2021, it is estimated that there will be a gross budget surplus in fibre revenue for the Recycling Centre of approximately \$2.94 million.

## 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). Table 3 provides a comparison of the budgeted revenue per MT versus actual revenue per MT for container stream commodities.

Table 3: Comparison of budgeted versus actual revenue for container stream at Niagara Region's Recycling Centre (January to June 2021).

Commodity Type	2021 Budget (Avg. \$/MT)	2021 Actuals January to June (Avg. \$/MT)	2021 Variance (Budget vs. Actual)
Containers	\$237	\$412	+73.8%

Container stream revenue for most commodities has steadily increased throughout 2021. Similar to the fibre stream, it is anticipated that market pricing will continue to remain strong throughout 2021. Figures 2 and 3 illustrate the average price per metric tonnes for a subset of the container stream commodities between June 2020 to June 2021.

Figure 2: Average price per metric tonne (\$/MT) for steel, aluminum, and HDPE between June 2020 and June 2021.

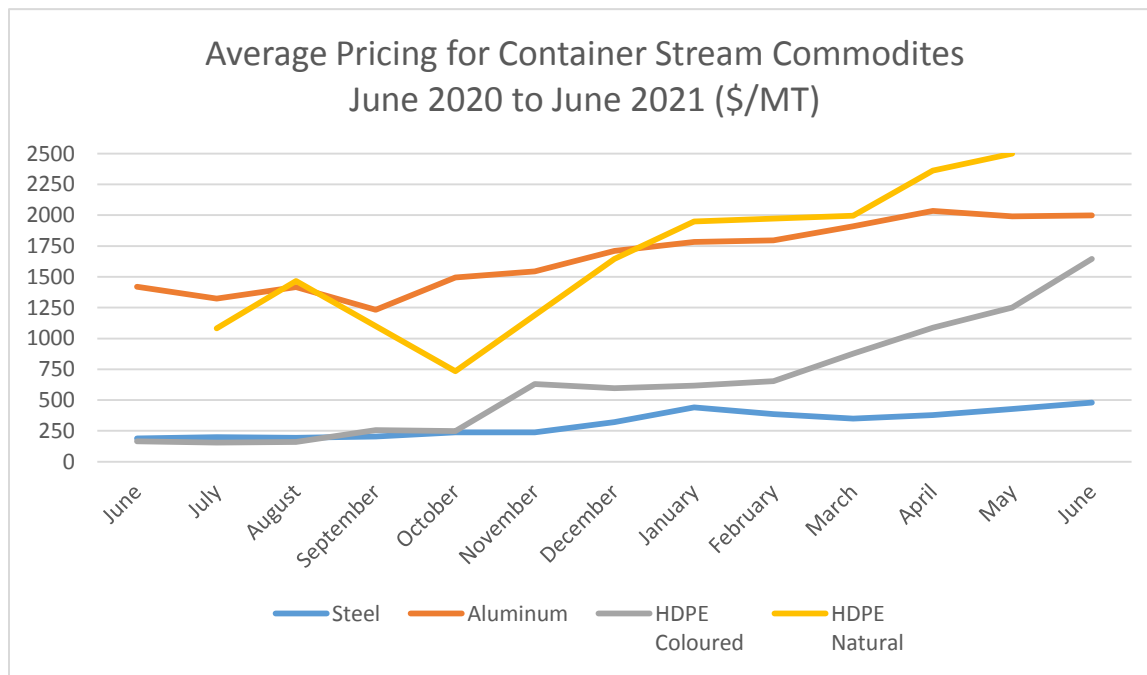
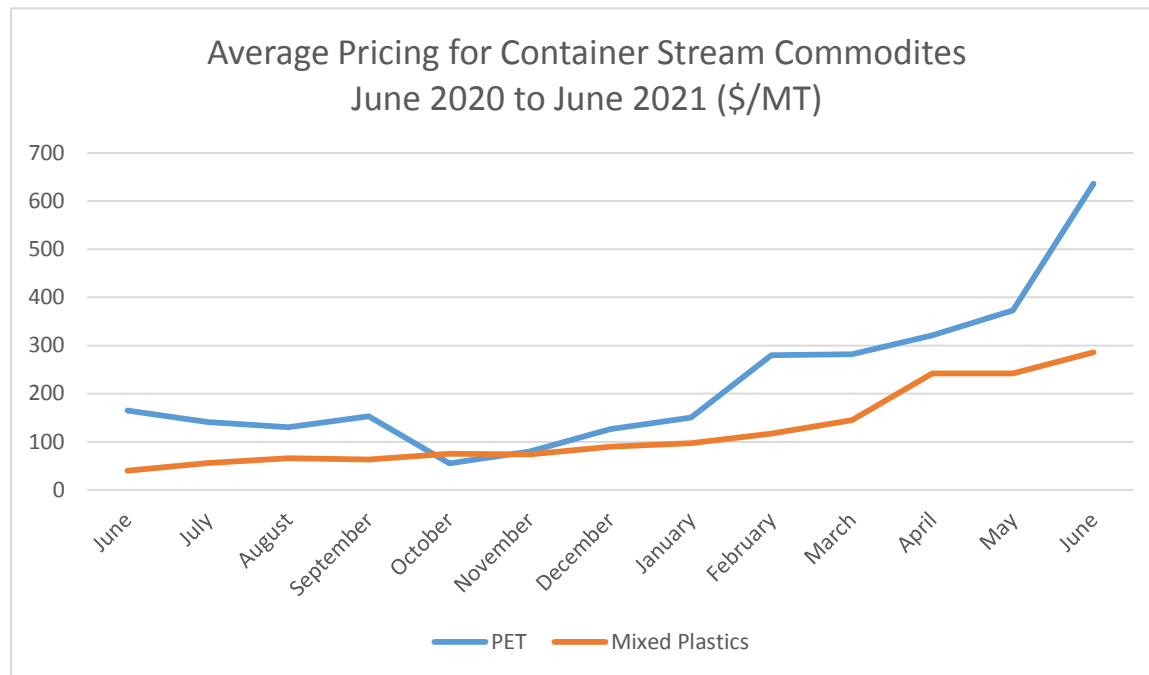


Figure 3: Average price per metric tonne (\$/MT) for PET and mixed plastics between June 2020 and June 2021.



In 2021, it is estimated that there will be a gross budget surplus in container revenue for the Recycling Centre of approximately \$2.6 million.

### Next Steps

Staff will provide a further update to members of the WMPSC in Q4 2021 on the market conditions for Q3 2021.

Respectfully submitted and signed by

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Jennifer Wilson  
Supervisor, Waste Management Services

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## MEMORANDUM

WMPSC-C 28-2021

**Subject: Recycling Matters – Curbside Recognition Audits**

**Date: Monday, August 30, 2021**

**To: Waste Management Planning Steering Committee**

**From: Lucy McGovern, Manager, Waste Management Services**

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In 2012, Niagara Region initiated a Gold Star recycling rewards program with a goal to improve the quantity and quality of the recyclable materials collected through the Region's curbside collection program. The Gold Star program is carried out when staffing resources are available. Since the program began in 2012, over 4,300 Niagara households have had curbside visual recycling audits. Of these, 793 households (18%) have been rewarded with a Gold Star recycling box. In 2019, Niagara Region initiated a new education campaign called *Recycling Matters*, and in the fall of 2021, the Gold Star recycling rewards program will again commence as part of the *Recycling Matters* education and awareness campaign.

### Background

The material placed in recycling boxes across Niagara can often be contaminated with materials that are either not recyclable, or not properly prepared for recycling collection and processing. Although these items may be set out for collection with the best of intentions, contaminated or improperly prepared recyclables cause a number of processing challenges at the Region's Recycling Centre, which can reduce the effectiveness and efficiency of the recycling process. This ultimately decreases the quality of the sorted recyclables; can increase taxpayer costs to manage the material; and can result in more waste destined for landfill.

The Gold Star recycling rewards program will support improved education and awareness regarding recycling preparation practices and the reduction of contamination. Additionally, the visual curbside audits encourages continued participation in the Region's recycling program and thanks residents who have successfully sorted their recyclables with a new Blue Box identifying them as Gold Star Recyclers.



## Key Messages

- Sorting and preparing your recyclable materials properly matters
- The improper sorting and preparation of recyclables increases costs to you as a taxpayer
- Revenue from the sale of successfully sorted recyclables helps offset taxpayer costs of Niagara's waste management programs
- Sorting and preparing recyclables properly ensures materials can be recycled and extends the life of our landfills

## Curbside Visual Audits and Gold Star Recycler Rewards

In the fall of 2021, visual curbside audits of recyclables will take place at approximately 600 low-density residential homes in each municipality across Niagara to look for contaminated and improperly prepared recycling materials. Staff will return to these households weekly, over three consecutive weeks, until successful sorting results are achieved. Unacceptable materials and highly contaminated recycling boxes observed during the visual curbside audits will be tagged as uncollectable. Educational *Recycling Matters* door hangers will be used to support sorting and preparation practices for residents with mediocre or poor recycling results. If curbside recycling is observed to be completed successfully, residents will be provided with an informative door hanger thanking them for their cooperation and will be rewarded with a new Gold Star Blue Box.

Auditors will look for the following proper recycling practices while conducting curbside visual audits:

- Use of the Blue Box, Grey Box and the Green Bin
- No mixing of Blue and Grey recyclable materials together
- Plastic bags and stretchy plastic outer-wrap is stuffed into one plastic bag and placed in the Grey Box
- Only empty containers and rigid plastic packaging are placed in the Blue Box
- Juice/milk cartons and juice boxes are placed in the Blue Box
- Only the plastic lids from take-out coffee and soft drink cups are placed in the Blue Box and the take-out cups themselves are not in either recycling box
- Empty aerosol cans and empty paint cans are placed in the Blue Box with lids removed; and
- No garbage observed in either the Blue or Grey Box

Door hangers recognizing and thanking successful sorters will include the option for residents to be profiled on Niagara Region's social media accounts with their new 'Gold Star Recycler' box. Promotional door hangers will direct residents to learn more about recycling at [www.niagararegion.ca/waste](http://www.niagararegion.ca/waste). See Appendix 1.

### **Next Steps**

Curbside visual audits will occur throughout September and October 2021. Staff will report on the audit results in the first quarter of 2022.

Respectfully submitted and signed by

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Lucy McGovern  
Manager, Waste Management Services

### **Appendices**

Appendix A – Thank You Door Hanger

## Thank You Door Hanger



**BOX IT. BIN IT. SORT IT.**

**Thank You**  
for preparing  
and sorting your  
recyclables correctly.

**You are a Gold Star Recycler**  
and Niagara Region is rewarding  
you with a Gold Star recycling box!

**Congratulations!**  
Keep up the great work!

**Niagara Region**

For more information, please visit [niagararegion.ca/waste](http://niagararegion.ca/waste)

**BOX IT. BIN IT. SORT IT.**

Would you like to share your Gold Star Recycler status on the Region's social media accounts?  
Send us a photo with your new Gold Star recycling box to  
[wastediversionevent@niagararegion.ca](mailto:wastediversionevent@niagararegion.ca)

 <p>Household paper is turned into new paper or made into paper towels</p>	 <p>Detergent bottles are ground into flakes and can form new plastic patio furniture, watering cans, flower pots or traffic cones</p>
 <p>Juice boxes and milk cartons are recycled into paper towels, cardboard boxes and tissues</p>	 <p>Aluminum cans are melted, cut and rolled into new cans or CDs</p>
 <p>Plastic water and pop bottles are ground into pellets to form new plastic products or formed into fibres to create clothing or carpet</p>	 <p>Steel cans are formed into new steel products like new steel cans, chains, or car parts</p>