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The Regional Municipality of Durham Information Report

From: Commissioner of Works
Report: #2020-INFO-76
Date: August 14, 2020

Subject:

The Regional Municipality of Durham's Evolving Integrated Waste Management System

Recommendation:

Receive for information

Report:

1. Purpose

1.1 The purpose of this report is to describe the current Integrated Waste Management System (IWMS) in place for the Regional Municipality of Durham's residents and provide an overview of how this system will evolve to achieve higher diversion rates, recover resources and contribute to reducing green house gas emissions.

2. Background

2.1 The Region has been developing its IWMS for over a decade, evolving from collecting only garbage and Blue Box materials to also collecting Green Bin organics, leaf and yard waste, electronics, tires, household hazardous waste, porcelain and bulky goods. The goal has been to maximize the diversion of waste materials from disposal.

2.2 Under the current IWMS many materials are collected at the curb. Blue Box materials and Green Bin organics are collected weekly while garbage is collected every other week. Leaf and yard waste is collected seasonally from April to December. Larger items such as scrap metal, electronics and non recyclable bulky

goods are collected on request. Household batteries are collected twice per year in a special collection.

- 2.3 The Region maintains three Waste Management Facilities for public drop-off of household hazardous waste, tires, electronics, leaf and yard waste, garbage and bulky items. There are two additional drop-off locations for household hazardous waste only.
- 2.4 Collected Blue Box material is transported to the Region's Material Recovery Facility where it is sorted, baled and shipped to other facilities for recycling. Green Bin organics are aerobically composted at a privately-owned and operated compost facility. Leaf and Yard material are also aerobically composted. Garbage is transported to the Durham York Energy Center (DYEC) where it is incinerated and electricity is generated.
- 2.5 Materials such as tires, electronics and household hazardous waste are received at the Waste Management Facilities where they are being picked up by service providers for recycling or disposal.

3. Future Integrated Waste Management System

- 3.1 The 2021-2040 Long-Term Waste Management Plan and Five-year Action Plan is currently under development and will guide the Region's IWMS for the coming years. Based on approved projects and coming regulatory requirements, the Region's IWMS will be very different by 2026 as illustrated in Attachment #1.
- 3.2 When the approved mixed waste pre-sort and anaerobic digestion facility is operational, the Region's garbage will be delivered to the new facilities after collection at the curb instead of going directly to the DYEC.
- 3.3 At the mixed waste pre-sort facility metals, plastics and food waste will be removed from the garbage for recycling or anaerobic digestion. Non-combustible material will also be removed from the garbage for disposal. The mixed waste pre-sort will significantly increase the diversion of food waste from residential garbage and minimize the quantity of non-combustible and other unacceptable materials that currently go to the DYEC.
- 3.4 There will be opportunities with the anaerobic digestion facility to preclude the need for compostable bags and introduce new items into the green bin such as diapers and pet waste. An enhanced list of acceptable materials, along with a re-

launch of the Green Bin to residents, will help maximize diversion and increase participation rates.

Tonnes of Residential Waste Managed



- 3.5 With the completion of the anaerobic digestion facility, the Region’s Green Bin organics will no longer be aerobically composted. Instead, the organics will be digested without oxygen to generate a biogas and digestate. The digestate can be turned into a compost material along with the collected leaf and yard waste. The biogas that is produced will supplement fossil fuel in the natural gas grid.
- 3.6 By 2026, the producers (or companies) that produce packaging, paper and paper-like products will take over the Blue Box collection system through the Extended Producer Responsibility (EPR) program. It is proposed that the producers will be responsible for Blue Box collection of single-family homes, most multi-residential buildings, and by request, schools and Long-Term Care Homes.
- 3.7 Under EPR the producers will also prepare the material for recycling and be responsible for identifying recycling operations to accept the material. The Region will no longer be responsible for the collection and processing of Blue Box materials.
- 3.8 Other recyclable materials are also moving to the EPR approach but with a less noticeable impact to residents. Tires, household hazardous waste, electronics and batteries are all transitioning to a new EPR system however, the current collection options for these materials will remain at the Waste Management Facilities.

4. Conclusion

- 4.1 The Regional Municipality of Durham's Integrated Waste Management System is evolving to continue to meet the needs of the Region's growing population and regulatory requirements.
- 4.2 The 2021 to 2040 Long-Term Waste Management Plan and 5-Year Action Plan is under development and is considering the Region's current and future IWMS, growing population and regulatory requirements. Consultation is underway with information available on the project's [webpage](#).
- 4.3 For additional information, please contact Gioseph Anello, Director, Waste Management Services, at 905-668-7711, extension 3445.

5. Attachments

Attachment #1: The Regional Municipality of Durham's Integrated Waste Management System's Timeline

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

What we have accomplished over the last 20 years

What will impact our waste management decisions over the next 20 years

