

Report To:	Regional Chair and Members of Regional Council
From:	Jim Harnum, Commissioner, Public Works
Date:	April 18, 2018
Report No. - Re:	PW-15-18 - 2017 Year End Waste Management Report

## RECOMMENDATION

THAT Report No. PW-15-18 re: “2017 Year End Waste Management Report” be received for information.

## REPORT

### **Executive Summary**

- The 2017 Waste Audit collected garbage, Blue Box and Green Cart material from 110 households across Halton Region and a Participation Study monitored approximately 1,100 households over a four week period.
- The amount of residential garbage generated per capita was 146 kg/year in 2017.
- The residential waste diversion rate remained consistent at 58 per cent.
- Blue Box, Green Cart and garbage tonnes increased slightly.
- Yard Waste tonnes increased from the previous year due to normal fluctuations in the growing season and no significant weather events.
- The Green Cart program continued to be expanded to multi-residential buildings.
- During the Participation Study, a small pilot study was undertaken to increase Green Cart participation. Households in the Participation Study area that did not place a Green Cart curbside were delivered a new Green Cart. Approximately 24 per cent of households that received a new Green Cart now use them for curbside collection of household organic waste.

## **Background**

Through the annual Year End Waste Management Report, Regional Council is provided information on the amount of waste material managed through services and programs provided by Halton Region. The report summarizes the amount of waste material collected at the curbside, at the Halton Waste Management Site and Special Waste Drop-Off Day events. The report also identifies the estimated tonnes of waste material diverted through the use of backyard composters and when residents leave grass clippings on the lawn.

An audit of residential curbside waste material was also completed in the Spring of 2017. The purpose of the Waste Audit was to determine the amount of material by type that is being placed in the Blue Box, Green Cart and garbage waste streams for collection. The audit results are helpful in determining the impact of Halton Region's diversion programs and the potential impact if enhanced waste diversion initiatives are implemented by means of the Solid Waste Management Strategy.

In addition to the Waste Audit, a Participation Study was completed in the Fall of 2017 that determined the waste material by type that is being placed curbside by households in Halton Region. During the Participation Study, staff also noted households that had not placed Green Carts for collection during the study period. These households were delivered Green Carts, Kitchen Catchers, liner bags and an information kit on acceptable material. Staff continued to monitor following delivery to determine the results.

## **Discussion**

### ***2017 Waste Audit and Participation Study Results***

As stated in Report No. PW-27-17, re: "2016 Year End Waste Management Report", Halton Region completed a Waste Audit of material placed for curbside collection from single family households. A Participation Study was also undertaken to determine the average set-out of Blue Boxes, Green Carts and garbage. The Waste Audit collected garbage, Blue Box material and Green Cart material from 110 households across Halton Region. The purpose of the audit was to determine waste generation and waste composition by material type and waste stream. The Participation Study monitored 1,100 households over a four week period.

Key findings of the 2017 Waste Audit and Participation Study are as follows:

- On a typical collection day, about 97 per cent of homes participate in Waste Management collection programs. The remaining 3 per cent would be late set outs, vacant properties, residents away, etc. Frequently, waste material was not set out for collection by 7 a.m.
- About 97 per cent of homes set out three or less garbage bags (and/or cans) bi-weekly; however, about 43 per cent of the average garbage bag could still be diverted through existing waste diversion programs.

- Overall, 74 per cent of sampled households placed a Green Cart out at least once in a four week period. Green Cart participation varied significantly among the 14 sample areas, with some areas as low as about 50 per cent.
- Audit results showed that 59 per cent of Green Cart organic material generated was placed in the Green Cart; however, 29 per cent of the average garbage bag could be diverted through the Green Cart program.
- Over 95 per cent of homes placed Blue Box recycling out for collection consistently. Although Blue Box participation remains consistent, contamination in the Blue Box recyclable was about 14 per cent due to residents placing the wrong materials into the Blue Box.

The Waste Audit identified that 4.5 per cent of residential garbage included textile material, 1.1 per cent was yard waste, less than 1 per cent was household hazardous waste, and less than half a per cent was electrical or electronic waste.

The amount of non-acceptable material being placed in both the Blue Box and the Green Cart is relatively low but has been slowly increasing. Examples of non-acceptable material in the Blue Box include plastic toys, plastic bags and plastic film, small electrical or electronic appliances, and tissue paper. Non-acceptable material in the Green Cart includes non-compostable plastic bags, pet waste and packaged food waste.

The results of the Waste Audit will be used to identify and prioritize new or enhanced waste services and programs and their impact when developing the Solid Waste Management Strategy.

### ***2017 Waste Generation and Residential Diversion Rate***

The residential waste diversion rate remained constant at 58 per cent. During this period:

- Halton Region's population grew by approximately 4 per cent;
- total residential waste managed by Halton Region increased by only 2 per cent; and,
- the amount of residential garbage generated per capita dropped slightly to 146 kg/year.

### **Yard Waste**

Yard waste tonnes are influenced by weather patterns and fluctuate year over year due to variations in weather conditions and significant weather events. In 2017 yard waste tonnes increased by almost 5 per cent compared to 2016 due in large part to more rainfall that occurred.

### **Blue Box Recycling**

The amount of Blue Box material collected in 2017 increased by 2 per cent from 2016 and is largely due to population growth. Light weight Blue Box materials continue to

impact the weight of recyclable material collected; however, the volume of material continues to grow as 95 per cent of all households consistently place Blue Box material out weekly.

### Green Cart Organic Waste Diversion

The total collected Green Cart organic material increased by almost 1 per cent from 2016 to 2017. The increase was due to expansion of the program into the multi-family buildings.

The Green Cart program was steadily expanded to multi-residential buildings in 2017. Over 200 apartment buildings are currently on the program. Existing buildings are added to the Green Cart program each week and new buildings receive Green Cart, Blue Box and garbage collection services. The program has received positive feedback during the open houses, implementation and follow-up monitoring.

### Green Cart Participation Pilot

When conducting the 2017 Participation Study, staff identified households that did not place a Green Cart curbside for collection over a two week period. Staff delivered 331 new Green Carts, Kitchen Catchers, compostable liner bags and information kits (kits identified acceptable and unacceptable material and tips to control odour) to non-participating households. Staff returned to the Participation Study neighbourhoods and monitored placement of material over a two-week period. Monitoring over a two-week period showed that 24 per cent of households that received a new Green Cart placed them curbside for collection.

### ***Halton Waste Management Site***

The total landfilled tonnes increased by 2.5 per cent from 2016 to 2017, and this increase is related to population growth.

Due to the current garbage generation rates and Halton Region residents' continued commitment to waste diversion, the landfill lifespan is now projected to be extended out to between 2044 and 2048. The current rate of disposal is having a positive impact on the remaining life of the landfill, conserving available space through successful diversion programs resulting in deferred capital expenditures.

### **Conclusion**

Residents of Halton Region continue to participate in waste diversion programs; however, Halton Region's waste diversion rate has reached a plateau and is not expected to increase without additional enhancements to diversion programs. Diversion initiatives in the Solid Waste Management Strategy, as well adopting new key performance indicators will assist in measuring Halton Region's waste diversion success in the future.

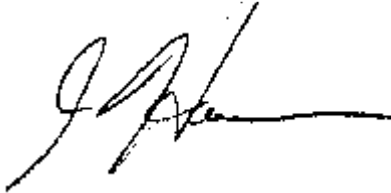
FINANCIAL/PROGRAM IMPLICATIONS

All costs associated with the Waste Management programs are included in the annual Operating Budget and Business Plan.

Respectfully submitted,



Rob Rivers CET  
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Operations



Jim Harnum  
Commissioner, Public Works

Approved by



Jane MacCaskill  
Chief Administrative Officer

If you have any questions on the content of this report,  
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Attachments: Attachment #1 – 2017 Residential Waste Diversion Report