



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	February 21, 2020
SUBJECT/REPORT NO:	Waste Audits and Recycling in City of Hamilton Public Space Locations (PW20012) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Angela Storey (905) 546-2424 Ext. 6483
SUBMITTED BY:	Craig Murdoch Director, Environmental Services Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

At the January 15, 2018 Public Works Committee, the following motion was received and approved at the January 24, 2018 Council meeting;

- (a) That staff be directed to conduct waste audits in 2018 to review material collected and the contamination rates in the City's public space recycling containers located in select City parks, BIAs and other City-owned public areas; and,
- (b) That the results of the audit be utilized to develop an enhanced public recycling plan to increase the number of recycling containers in staffed parks and other City-owned public areas with the goal of increasing the City's waste diversion and recycling rates in consideration of the requirements addressed in the provincial Waste-Free Ontario Act; and,
- (c) That the plan, and associated cost of implementation, be presented to the Public Works Committee for consideration.

INFORMATION

In response to the direction, three waste audits were carried out in the following types of public spaces during the summer of 2019: parks, transit stops and street side litter containers.

Results of the waste audits found that all types of public spaces had high contamination rates in the recycling containers, which ranged from 36.4% to 56.3%, which is higher than our current contamination rate for household recycling at the City's Material Recycling Facility (MRF), which averages 15% to 20%. Examples of contaminated materials in recycling containers include bagged household garbage, bags of pet waste, hazardous waste, chip bags, wrappers and containers containing food or liquid.

Audit results for public spaces with recycling containers are summarized in Table 1. In all cases, due to a significant amount of contaminated material found in the recycling containers, the material is collected as garbage and sent to landfill.

Table 1

Audits Results of Recycling Containers by Public Space Type			
Public Space Type	Amount of Audited Material (kgs)	Amount of Contamination (kgs)	Contamination Rate (%)
Parks	168.3	79.1	47
Transit Stops	39.5	14.4	36.4
Streetside Litter Containers	69.3	39.0	56.3

Parks

For the purpose of the project, four parks and one set of escarpment stairs were audited for contamination in July, August and September 2019. The July audit looked at garbage and recycling containers in their original locations. The August audit ensured there was a recycling container paired with garbage containers. The September audit was completed after labels were affixed to containers to clearly identify acceptable material for each container. Results show contamination rates in recycling containers vary by park. Table 2 lists the parks and escarpment stairs included in the waste audits and the contamination rate at each location.

**SUBJECT: Waste Audits and Recycling in City of Hamilton Public Space
Locations (PW20012) (City Wide) - Page 3 of 5**

Table 2

Audit Results of Recycling Containers by Park			
Park	Contamination Rate July (%)	Contamination Rate August (%)	Contamination Rate September (%)
Ancaster Community Park	N/A	34.2	50.1
Joe Sam's Leisure Park	22.9	25.4	28.0
Macassa Park	N/A	65.0	48.5
Winona Park	79.2	61.9	65.4
Kenilworth Stairs	55.7	50.5	N/A

Neither Ancaster Community Park nor Macassa Park were audited in July as there were only garbage containers onsite with recycling containers being added shortly thereafter. The results for the Kenilworth stairs improved between July and August once a recycling container was paired with the garbage container. Unfortunately, the recycling container had been recently emptied so there was no material available to audit in September. The waste audits showed that there were mixed results after adding additional recycling containers and adding labels to them.

Audit results can also be compared based on how the park is used. Park use includes walking trails and pathways, sports fields, parking lots, washrooms and concession buildings, food pavilions and playgrounds. Information was captured by use and the audit results are summarized in Table 3. Contamination rates ranged between 35.9% in containers near sports fields to 81.4% in containers near food pavilions.

Table 3

Audit Results of Recycling Containers by Park Use	
Park Use	Contamination Rate (%)
Food Pavilions	81.4
Park Trails	52.8
Parking Lots	40.5
Playgrounds	63.2
Sports Fields	35.9
Walking Paths	76.2
Washrooms and Concessions	52.6

Transit Stops

Waste containers located at transit stops are under contract and the contract is managed by the Transportation Operations and Maintenance Division. The current contract is with Creative Outdoor Advertising (COA). COA containers are three stream

**SUBJECT: Waste Audits and Recycling in City of Hamilton Public Space
Locations (PW20012) (City Wide) - Page 4 of 5**

waste containers configured to collect garbage, container recycling and fibre recycling. Ten (10) COA containers were included in the waste audits at the following street intersections:

- Wilson Street and Cameron Drive, Ancaster
- Golf Links Road and Legend Court, Ancaster
- Main Street West and Emerson Street, Hamilton
- Main Street West and Bay Street, Hamilton
- Main Street East and Sherman Avenue, Hamilton
- Queenston Road and Kenora Avenue, Hamilton
- Cootes Drive and West Street, Dundas
- Highway 8 and Dewitt Road, Stoney Creek
- Mohawk Road West and Magnolia Drive, Hamilton
- Upper Wellington Street and Stone Church Road East, Hamilton

Audit results showed the recycling streams in the COA waste containers had an average contamination rate of 36.7%.

Streetside Litter Containers

The audited streetside litter containers were in the downtown area of the City along King Street, Main Street, MacNab Street, James Street, York Boulevard and Summers Lane. A total of 11 locations were audited and both types of street containers currently being used were audited – Jubilee containers and OMG Media Inc. (OMG) containers.

Jubilee containers are plastic single stream containers and are either configured for garbage, container recycling or fibre recycling. OMG containers are stainless steel three stream containers and are configured to collect garbage, container recycling and fibre recycling in a single unit. There were seven Jubilee locations audited and four OMG locations audited. All Jubilee locations had both a garbage receptacle and at least one recycling container. The audit results for streetside litter containers is summarized in Table 4. As seen in Table 4, the contamination rate in these containers was also high and similar to the audit results in Parks and at Transit stops.

Table 4

Audit Results of Recycling Containers by Streetside Litter Container Types	
Container Type	Contamination Rate
Jubilee container locations	40.8%
OMG Media Inc. container locations	35.6%
Average of all street side litter containers	38.2%

Trails

Red Hill Valley Trail was included in the waste audits despite the fact this trail doesn't have any recycling containers. The waste audits on the garbage containers along the trail indicated that only 8.3% of the material within the garbage containers would be acceptable in the blue box program. This is a good indicator that there is very little blue box material disposed in this type of public space.

Waste Free Ontario Act – Blue Box Program Transition

As previously communicated to Council, staff are paying close attention to the pending legislation that will see the ownership and responsibility of blue box collection and processing programs transition from municipalities to Full / Extended Producer Responsibility (EPR). Draft regulations for EPR are expected to be posted to solicit comments from staff by the end of 2020. Due to the pending legislation, significant changes or investments in recycling programs in the City's public spaces is not recommended and the cost to fully implement recycling in public spaces has not been determined.

Public Space Recycling – Going Forward

Although audit results show that recycling containers in public spaces are heavily contaminated with non-recyclable items, Parks Operations and Maintenance staff will continue to offer recycling opportunities in City Wide, staffed park locations from May to October, the Downtown Cleanliness team in Waste Collections will continue to offer recycling opportunities year round in select Business Improvement Areas (BIAs) and the Transportation Operations and Maintenance Division will continue to offer recycling opportunities in the COA multi-sort containers at Transit stops. In addition, Waste Planning and Outreach staff will ensure the containers in public spaces are the right style and configuration for the locations and that containers are labelled with information about what items are accepted in the applicable container. Staff will develop and implement an education campaign related to Recycling in Public Spaces. Summer waste audits will be performed to monitor the progress of the programs with a goal of increasing the capture of acceptable material and reducing contamination in the recycling containers so that material can be properly recycled rather than sent to landfill as garbage. Results of audits and the status of the program will be reported back through the Waste Management Advisory Committee with minutes being approved at Public Works Committee.

APPENDICES AND SCHEDULES ATTACHED

Not applicable