Committee of the Whole (2) Report

DATE: Tuesday, June 18, 2024   **WARD(S):** ALL

TITLE: 2024-2026 LITTER REDUCTION ACTION PLAN AND UPDATE

FROM:
Zoran Postic, Deputy City Manager, Public Works

ACTION: FOR INFORMATION

Purpose

To provide an update following results from Vaughan's first litter audit, including details about a litter reduction action plan that has been developed.

Report Highlights

- Portfolio data indicates that littering is the top eighth call type received in Public Works according to the Customer Relationship Management (CRM) system.
- Vaughan's first litter audit was completed in three phases beginning in April 2023 and completed by August 2023.
- The audit results highlighted key findings, including common types of litter material, brands and significant hotspot areas in Vaughan.
- A Litter Reduction Action Plan (2024-2026) that includes four key commitments, was developed from the litter audit findings.
- Several strategies deriving from the framework are currently underway and are expected to continue throughout 2024 and beyond.

Recommendations

1. THAT this report be received.

Background

To proactively address litter concerns in the city, a jurisdictional scan was conducted to gain insights into strategies that have been adopted by neighbouring municipalities.

Litter poses significant concerns for municipalities, including costs for clean-up and maintenance and substantial environmental and wildlife issues. To proactively address these concerns, staff conducted a jurisdictional scan in 2022 and learned that a few municipalities, including the City of Toronto, have used litter audits to strategically approach this issue. Several effective initiatives have been launched in Toronto stemming from the audit findings, which inspired Vaughan staff to conduct the city's inaugural litter audit in June 2023. Staff aimed to adopt a data-driven approach to pinpoint hot spots in the city, implement targeted strategies, and most importantly, gain a better understanding of the litter problem in Vaughan.

Portfolio data for 2023 indicates that littering is the top eighth call type received in Public Works according to call volume data.

Data from the Customer Relationship Management (CRM) system has shown that litter calls are among the top ten call types received for Public Works, with a total of 1,438 calls in 2023 as indicated in Figure 1 below. These statistics highlight the problem litter poses on our community and the desire from our residents to keep our community safe, clean and beautiful.

Figure 1: 2023 Public Works Service-Related Calls from the CRM system
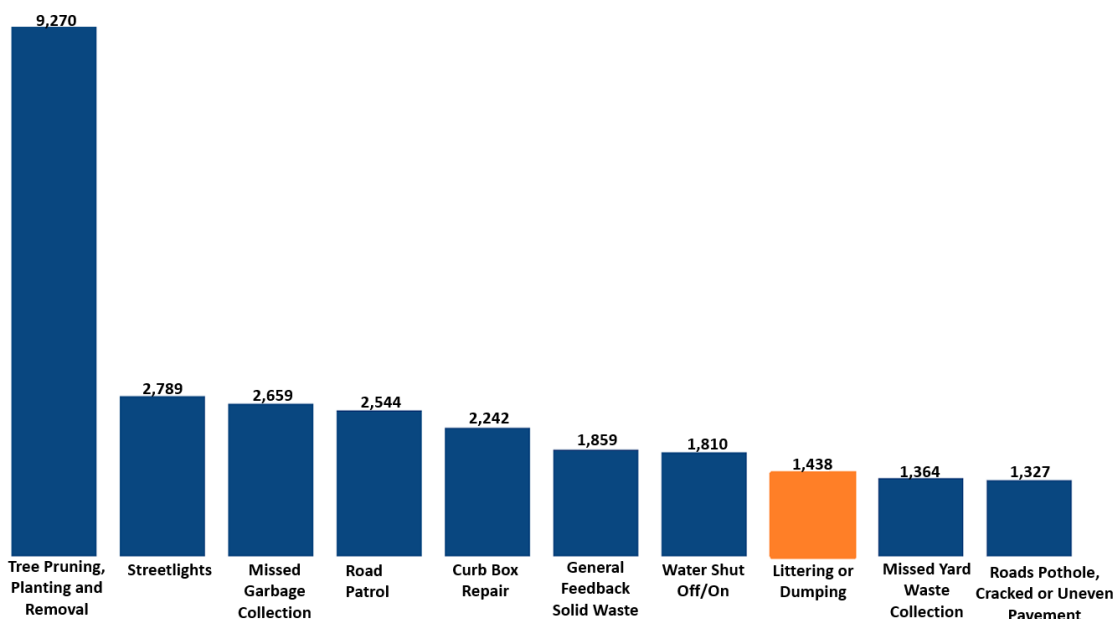
There are numerous benefits to conducting a litter audit as shown by research and results from other leading municipalities.

The City of Toronto has implemented several initiatives since implementing litter audits in 2002. This includes notable changes to infrastructure, through the addition of cigarette butt compartments on waste bins, as well as an increase in waste bins in hot spot areas throughout the city. Ongoing litter audits have shown a decrease in cigarette butts found strewn on city streets.

Similarly, the City of Edmonton has been proactive in addressing litter issues by conducting regular litter audits since 2009. Based on findings from these audits, it was found that cigarette butts, like Toronto, were among the top types of small litter found within the city throughout the years. Since initiating the audits, the city has effectively implemented 719 ashtrays, which has led to a decrease of 42.1 per cent in cigarette butt litter from 2018 to 2019.

Vaughan's first litter audit was conducted in three phases beginning in April 2023 and completed by August 2023.

In April 2023, the Public Works department engaged a consultant to conduct Vaughan's first comprehensive city-wide litter audit. This initiative reflects a commitment to proactively assess litter within the community and gain insights into its characteristics. The audit was conducted in three phases:

- **Phase 1 – Background Review and Analysis:** The project team provided the consultant, AET Group, with relevant documentation and information to develop a tailored plan and strategy based on multiple factors, including Vaughan's population size, key assets, topography and our five wards among other considerations. Through this process, 100 sites were randomly selected using a sample size software calculator to minimize skewing of data. The selected sites were of comparable size and equally distributed throughout the city's five wards.
- **Phase 2 – In- field Litter Audit:** In June 2023, the consultant team went into the field to conduct audits at the 100 pre-selected locations identified in Phase 1. These sites were located throughout the public realm in the city.
- **Phase 3 – Final Report and Recommendations:** The consultant prepared a final report with detailed findings and recommendations.

Previous Reports/Authority
N/A

Analysis and Options

The audit results highlighted key findings, including common types of litter material, brands and significant hotspot areas in Vaughan.

Out of the 100 audited sites, 346 pieces of small litter were identified. Small litter is described as equal to or smaller than four square inches. The average amount per site was four pieces and the site with the most small litter had 33 pieces. The most commonly occurring small litter items included cigarette butts and debris, which accounted for 35.3 per cent, followed by paper at 20.5 per cent. Other commonly found items include candy packaging, wrappers and plastic film. In addition, there were 21 sites with above-average counts of small litter and 69 sites with below-average counts. Exactly 10 sites had the average count of small litter, and there were 36 sites which were free of small litter. The findings are further highlighted in Table 1 below.

Table 1: Highest Ranking Sites for Small Litter

Rank	Site #	Site Id	Small Litter	Address	Ward
1	28	55	33	8899 Jane St.	4
2	42	3	33	3700 Steeles Ave.	3
3	21	68	15	331 Jacob Keefer Pkwy	4
4	61	85	14	41 Poetry Dr.	3
5	66	127	13	11399 Keele St.	1
6	12	13	12	208 Conley St.	5
7	27	35	12	668 Millway Ave.	4
8	41	78	12	66 Marathon Ave.	4
9	60	88	12	81 Sunset Terr.	3
10	25	18	11	315 Millway Ave.	4

The consultant team also measured large litter across the 100 sites, described as equal to or larger than four square inches. The total number of large litter identified across the audited sites was 656, with the average number of large litter being seven, and the

highest amount found at any one site, equating to 96 pieces. Out of all the large litter, miscellaneous plastic was the most common type, occurring at 9.6 per cent with a count of 63 items. The second most common item was plastic water bottles at 9.3 per cent. Towels, napkins and serviettes without a brand name and other materials followed closely at 8.5 per cent. Other top items included cup lids, lid pieces and straws. In terms of materials, plastic was the largest category found at 40.2 per cent, followed by paper at 32.6 per cent. Additional details on the material types found are listed in the figure below.

Figure 2: Large Litter by Material Type
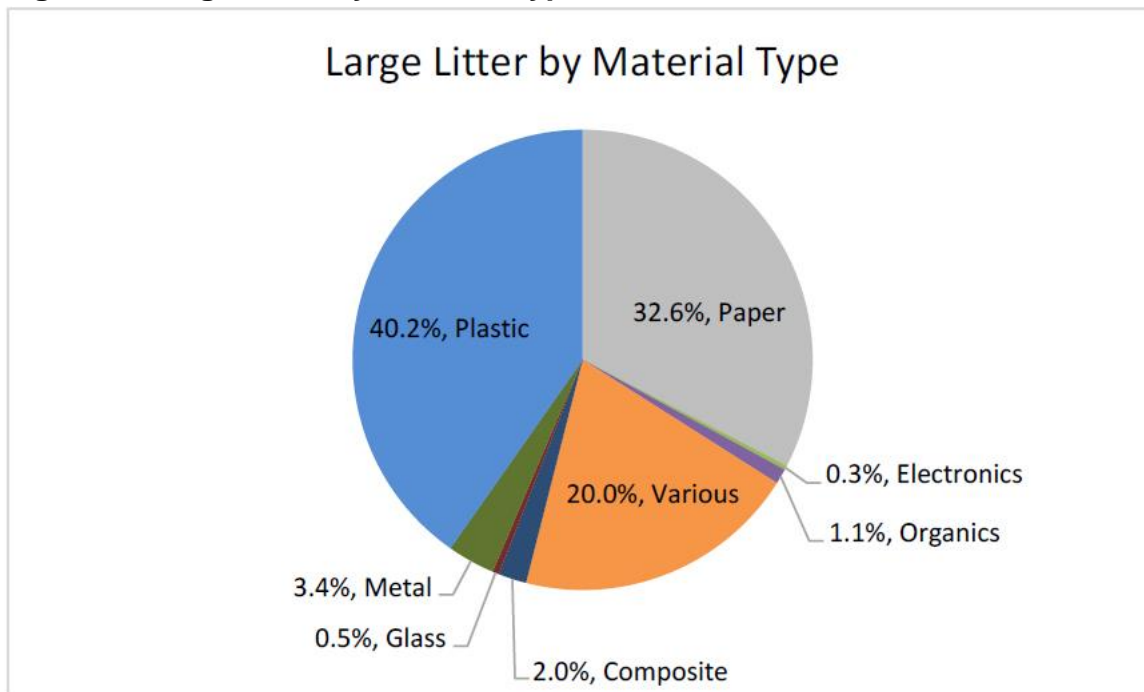
While completing the audit on large litter items, our consultants also recorded any brand names that were visible. Out of the 656 large litter items recorded, 160 items had an identifiable brand, with a total of 73 different brands detected. The most prevalent brand was Tim Hortons, accounting for 20.6 per cent, followed by McDonald's at 6.9 per cent and Nestle at 5.6 per cent. Other top brand names identified include No Name, Belmont Cigarettes, Coca-Cola, Kirkland, Pepsi, President's Choice and Starbucks.

In addition, the following chart lists the top 10 sites with the highest number of combined litter (small and large):

Table 2: Site Ranking for All Litter (Combined Large and Small Litter)

Rank	Site ID	Site #	Large Litter	Small Litter	All Litter	Street Name
1	69	87	96	0	96	11050 Cold Creek Rd.
2	3	42	19	33	52	3700 Steeles Ave.
3	55	28	15	33	48	8899 Jane St.
4	127	66	32	13	45	11399 Keele St.
5	85	61	21	14	35	41 Poetry Dr.
6	68	21	18	16	34	331 Jacob Keefer Pkwy
7	101	72	23	6	29	1 Angel View Ct.
8	88	60	16	12	28	81 Sunset Terr.
9	35	27	15	12	27	668 Millway Ave.
10	18	25	11	11	22	315 Millway Ave.

In terms of area characteristics, 40 per cent of the top 10 sites were commercial or a combination of commercial residential, 30 per cent were residential and 30 per cent were industrial.

A Litter Reduction Action Plan (2024-2026) that includes four key commitments has been developed from the findings to create a holistic approach.

Since receiving the litter audit report, staff have developed a data-driven framework and strategy for 2024-2026 to address litter issues throughout the city. The strategy highlights four key pillars to combat litter in the community.

Commitment One: Enhance Education and Community Engagement
The first commitment is being implemented in partnership with the City's Communications, Marketing and Engagement department. For several years, the team has leveraged all its channels to employ a year-long communications plan related to litter. This was enhanced in 2024 with the findings of the audit, which informed the approach to continue to educate residents about the consequences of litter and how to avoid it.

The department's comprehensive communications campaigns provide key messages in plain language about the rules and related by-laws and how to file a complaint – whether with the City or another organization.

Public Works staff have also worked with the Office of the City Clerk to proclaim The Provincial Day of Action on Litter in May and will proclaim World Litter Day in September to raise community awareness. Additionally, in partnership with the Policy Planning and Special Programs department, staff will continue to explore more opportunities to increase the number of community-led clean-up days, events and initiatives. Staff will also consider school partnerships for litter pickups to fulfill community service hours. All efforts and opportunities are supported by the Communications, Marketing and Engagement department.

Staff have also collaborated with Canada Post to define maintenance responsibilities near community mailboxes and updated the city website with appropriate contact information.

Commitment Two: Continue Enforcement Efforts
The second commitment will be executed in partnership with the By-law and Compliance, Licensing and Permit Services department by reviewing existing enforcement processes to improve how property-related violations are handled. Further tactics involve ongoing monitoring of the effectiveness of existing penalties. To date, fines have effectively been doubled for repeat offenders.

Commitment Three: Modernize Litter Infrastructure
The third commitment involves an internal review and considerations regarding increasing the number of waste bins in high-traffic areas, hot spots and remote areas. Staff will continue to implement a garbage bin replacement program to combat illegal dumping in City parks. In May 2024, Public Works also successfully expanded the SmartParks initiative to include 10 additional City parks, for a total of 15 SmartParks across the five wards with revamped signage. The SmartParks initiative encourages community engagement and public responsibility in keeping the city clean and beautiful.

Commitment Four: Optimize the Operations Approach
Optimizing the Operations approach includes an internal review from Public Works of existing maintenance schedules through route-optimization software to enhance rotation efficiency. Staff will explore options to increase funding for seasonal staff to collect litter during peak community-gathering seasons and the project team will conduct regular litter audits for continuous improvement.

Several strategies deriving from the framework are currently underway and expected to continue throughout 2024 and beyond, with a focus on continuous improvement.

Looking ahead, the City intends to conduct regular litter audits every three years in keeping with continuous improvement efforts. The audits will provide insight into the effectiveness of implemented strategies and any blind spots that may require additional focus and attention.

Financial Impact
There are minimal financial impacts related to this report.

Operational Impact
Consultation has taken place with Communications, Marketing and Engagement and By-law and Compliance, Licensing and Permit Services departments to develop the 2024-2026 Litter Reduction Action Plan. Staff will work with Communications, Marketing and Engagement to implement Commitment One: Enhance Education and Community Engagement, and By-law and Compliance, Licensing and Permit Services to implement Commitment Two: Continue Enforcement Efforts.

Broader Regional Impacts/Considerations
There are no broader regional impacts/considerations as it relates to this report.

Conclusion
The City's first litter audit prompted the development of a comprehensive strategy to combat littering. Through various partnerships with internal City departments and leveraging data analysis, staff aim to continue to educate the community, enhance enforcement measures, modernize litter infrastructure and optimize operations. Implementation of these tactics includes ongoing targeted communication, enforcement reviews and improvements to infrastructure. Regular audits will ensure continuous improvement and ongoing progress to tackle litter, highlighting the City's commitment to a cleaner and more sustainable environment.

For more information, please contact: Shanon Kalra-Ramjoo, Director, Parks, Forestry and Horticulture Operations

Attachments
1. 2023 Litter Audit Report, AET Group Inc., August 2023
2. Litter Reduction Action Plan (2024-2026)

Prepared by
Reeta Singh, Executive Assistant to the Deputy City Manager, Public Works, ext. 6327