

WASTE CONTAINERS

RECOMMENDATION

1. That the October 11, 2022, City Operations report CO01327, be received for information.
2. That Attachment 1 of the October 11, 2022, City Operations report CO01327, remain private pursuant to sections 16 (disclosure harmful to business interests of a third party) and 25 (disclosure harmful to economic and other interests of a public body) of the *Freedom of Information and Protection of Privacy Act*.

Requested Council Action		Information only	
ConnectEdmonton's Guiding Principle		ConnectEdmonton Strategic Goals	
CONNECTED This unifies our work as we work to achieve our strategic goals.		Climate Resilience	
City Plan Values	LIVE.		
City Plan Big City Move(s)	Greener as we grow	Relationship to Council's Strategic Priorities	Climate adaptation and energy transition
Corporate Business Plan	Managing the Corporation		
Council Policy, Program or Project Relationships	<ul style="list-style-type: none"> • N/A 		
Related Council Discussions	<ul style="list-style-type: none"> • June 7/8/10/13, 2022: City Council 		

Previous Council/Committee Action

At the June 7/8/10/13, 2022, City Council meeting, Councillor A. Knack made the following inquiry:

Can Administration provide the following information:

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1. The total number of public space waste containers across the city.
2. A breakdown of how many containers are emptied by City staff versus contracted out.
3. A description of how frequency of pickup is currently determined and if we are considering new technology to streamline waste collection (ex: sensors that monitor waste levels in a container).
4. A breakdown of the cost difference to empty waste containers in-house versus contracted out.
5. An explanation of how we determine where to put new bins, how communities can request new bins, and the cost of acquiring new containers.

Executive Summary

- There are over 10,000 public space waste containers located throughout the city.
- Approximately half of the waste containers are serviced by a contractor, while the waste containers in parks and open spaces are serviced by City staff.
- Waste container servicing frequency ranges from daily to weekly depending on pedestrian traffic, use patterns and the volume of the container.
- An Outdoor Litter Program Review conducted in 2020 determined that the total number of public space waste containers and the density of the containers (both on-street and in parks and open spaces) is extensive and well distributed across the City, with above average container density compared to 14 other Canadian municipalities.
- Administration continues to make incremental improvements to the management of public space waste containers in Edmonton.
- More significant changes to the public space waste container program, to further improve operational efficiency and better support the waste reduction and diversion objectives of Edmonton's 25-year Waste Strategy, will be assessed, prioritized, planned and implemented as other Waste Strategy priorities are completed.

Question 1 - Total Number of Public Space Waste Containers Across the City

There are 10,030 public waste containers in Edmonton. The number of waste containers fluctuates as they are regularly adjusted to meet seasonal, program and event needs.

- 5,488, or 55 per cent, are in parks and open spaces (including River Valley parks)
- 2,986, or 30 per cent, are at bus stops and transit centres
- 1,556, or 15 per cent, are in key commercial areas like Business Improvement Areas (BIAs)

Question 2 - How Many Containers Emptied by City Staff vs Contracted Out

The on-street waste containers at bus stops and in key commercial areas, and those in transit centres, (4,542 total containers) are serviced by a custodial contractor. The public waste containers in parks and open spaces (5,488 containers) are emptied by City staff, allowing for specialized servicing (for example, off-road servicing in a river valley park) and operational efficiency through integration with other site servicing tasks.

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Question 3 - How Frequency of Pickup is Currently Determined and Considering New Technology to Streamline Waste Collection

Frequency of collection is determined based on servicing history and forecast demand, with periodic adjustments based on collector observations and resident feedback.

- Bus stop waste containers on average are emptied one to two times a week, depending on how busy the route is.
- Transit Centre waste containers are emptied once per day.
- Service to waste containers in key commercial areas varies from daily to weekly, with approximately 60 per cent (915 of 1,556) of these containers emptied daily.
- Service to waste containers in parks and open spaces varies from daily to biweekly.

Containers that are frequently overfilled will either have service increased or containers added to the location.

Waste Services is also conducting an ongoing trial of sensor technology in communal waste bins at City sites, and will consider how this technology can be deployed to select public space waste containers to improve container siting and servicing decisions as evidence and learnings from the trial emerge.

The routing technology for waste containers serviced by City staff is also currently being updated.

Question 4 - Breakdown of Cost Difference to Empty Waste Containers In-house vs Contracted Out

The cost to empty containers serviced under the current custodial contract is provided in Attachment 1, which is to remain private pursuant to sections 16 (disclosure harmful to business interests of a third party) and 25 (disclosure harmful to economic and other interests of a public body) of the *Freedom of Information and Protection of Privacy Act*.

In 2019, as part of the Program and Service Review (PSR), the estimated cost for emptying on-street waste containers (those immediately adjacent to a roadway) serviced by City staff was \$3.40 per container. Internal servicing provided added benefits, including more detailed and accurate reporting of container fill levels at servicing, ongoing observation of the container's physical condition and the ability to be agile in adjusting service quickly to meet emerging needs. An outcome of the PSR was the consolidation of servicing on-street waste containers under one single contract which took effect in January 2021.

It is expected that the cost for emptying the parks and open spaces containers by City staff is slightly higher than the estimate above, given the specialized servicing and equipment involved, although these costs require an updated analysis by Administration that will be conducted as part of the ongoing continuous improvement efforts outlined at the end of this report. The cost per service for parks and open space containers is also extremely variable depending on the container location, how it is accessed, the equipment that is required to empty it, the impact of events on how and when it is serviced, and various other considerations.

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Approximately 60 per cent of parks and open space containers are serviced by staff who perform a wide range of tasks as part of their regular duties, including servicing litter removal from streets and green spaces, pavillion maintenance, pressure washing of downtown parks and spray pad washing. Other waste functions performed by City staff outside of waste container servicing includes road patrol, which is a 24/7 on call service to remove road waste such as spills and dead animal pickup, as well as the special waste collection team that provides encampment cleanup and specialized waste removal in the downtown core such as litter, biohazardous material and needle pick up. These site servicing functions are measured, but are more difficult to estimate from a cost-per-container calculation.

Question 5 - Determine Where to Put New Bins, How Communities Can Request New Bins and Cost of Acquiring New Containers

The City has specific public space waste container placement criteria and the distribution of waste containers across the City is regularly reviewed to balance accessibility and servicing efficiency. Waste containers are incorporated into public spaces in several ways:

- Through the design and construction of public spaces by the City and its contractors (e.g., at all new bus stops with a shelter, in key commercial areas that have been renewed, or in a neighborhood park that has been redeveloped).
- Through the design and construction of public spaces by developers, for eventual transfer to the City through a “final acceptance certificate” (e.g., in the parks and open spaces of a new neighborhood).
- Through the continuous improvement efforts of Administration (e.g., when changes to the way a space is used by the public, and associated changes to the volume of waste, indicate the need to add a waste container).
- In response to public input (typically through the 311 system) and following an assessment using the placement criteria.

The types of containers used in different public spaces, and thus the cost to acquire new containers, varies. Among the more standard containers in use throughout the City are waste containers commonly used at bus stops and in key commercial areas. The costs of these containers are provided in Attachment 1, which is to remain private pursuant to sections 16 (disclosure harmful to business interests of a third party) and 25 (disclosure harmful to economic and other interests of a public body) of the *Freedom of Information and Protection of Privacy Act*.

Additional Context

Administration conducted an Outdoor Litter Program Review in 2020. The review consisted of a benchmarking analysis, consultation with other Canadian municipalities and City staff and a review of 311 complaints data. The review determined that:

- The total number of public space waste containers and the density of the containers (both on-street and in parks and open spaces) is extensive and well distributed across the City.

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- Both the City's on-street and open space waste container program has above the average number of public space waste containers when compared to other Canadian cities, which indicates easier and improved access.
- Edmonton has more than twice the on-street waste containers as compared to Calgary; and nearly 50 per cent more open space waste containers per hectare of maintained parkland compared to the median value for 14 Canadian municipalities.

Based on the analysis and findings from the Outdoor Litter Program Review conducted in 2020, and as part of the ongoing continuous improvement activities of Administration, the following work is complete or underway to continue to improve the siting and servicing of public space waste containers:

- In January 2021, the servicing of on-street waste containers was consolidated under a single contract.
- Work to expand and leverage social partnerships to implement targeted tactics to address litter hotspots is ongoing.
- Work to update the operating procedures for implementing short-term servicing changes leading up to, during and after scheduled events is underway for waste containers serviced by the contractor.
- Administration is conducting an updated analysis of City costs for servicing public space waste containers, and periodically evaluates the potential to transition additional public space waste containers to the existing custodial services contract.

As part of the implementation of Edmonton's 25-year Waste Strategy, the following work related to public space waste containers is also planned or underway:

- Expansion of two-stream sorting (garbage and recycling) and the introduction of three-stream sorting (garbage, recycling and food scraps/organics) in priority outdoor commercial areas, parks and open spaces (substantially completed in 2020 and 2021 as part of the Corporate Waste Transformation with rollout to approximately 240 sites to be completed by Q3 2022).
- A waste characterization study of waste in public space waste containers (Q2 2023).
- A Single-use Item Reduction Strategy (approved by City Council in April 2022) and Charter Bylaw 20117 - Single-use Item Reduction Bylaw (scheduled to receive second and third readings at the October 4, 2022 Public Hearing) that aims to reduce the number of regulated single-use items used in Edmonton by 20 per cent within four years.
- A smart bin sensor pilot in waste bins at City sites (to be completed in 2022) that is expected to yield findings about how sensors can be deployed to address other issues related to waste sorting and waste container servicing.

Additional work related to the expansion of three-stream waste sorting in public spaces and other potential changes (e.g., the introduction of cart-based service in public spaces, or the

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targeted deployment of sensors) will be assessed, prioritized, planned and implemented as other Waste Strategy priorities are completed.

ATTACHMENT

1. Waste Container Costs (PRIVATE)