

Using 311 and Other Data to Identify Trends and Improve Service Delivery in Solid Waste Management Services

Date: June 19, 2026

To: Service Excellence Committee

From: General Manager, Solid Waste Management Services

Wards: All

SUMMARY

At its meeting on March 23, 2026, the Service Excellence Committee requested the General Manager, Solid Waste Management Services (SWMS) to report back to the Service Excellence Committee at its meeting on July 6, 2026, on how the Division uses 311 service request (SR) data, as well as other data sources, to identify trends and make service improvements.

SWMS utilizes a range of integrated data sources to support informed decision making and ensure safe, efficient and timely delivery of services. This includes tonnage data, asset information, geospatial data, operational performance data and 311 SR data.

These data sources play a critical role in planning and allocating sufficient resources, identifying trends, and forecasting budget. They also support the Division with asset lifecycle management, safe and efficient coordination and optimization of collection routes and the ability to identify high-demand locations or areas. Additionally, this data provides insight into contractor performance and supports continuous improvement initiatives and long-term strategic planning.

RECOMMENDATIONS

The General Manager, Solid Waste Management Services recommends that:

1. The Service Excellence Committee receive this report for information.

FINANCIAL IMPACT

There are no financial impacts resulting from the adoption of the recommendation in this report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact statement.

DECISION HISTORY

At its meeting on March 23, 2026, The Service Excellence Committee adopted item SE11.2- Leveraging Data to Drive Service Excellence in Parks and Recreation and Transportation; and recommended (2) that the Executive Committee, request the General Manager Toronto Water, the General Manager, Solid Waste Management Services and the Executive Director, Environment, Climate and Forestry to report back to the Service Excellence Committee at its meeting on July 6, 2026, on how they use 311 data, as well as other data sources, to identify trends and make service improvements. [Agenda Item History - 2026.SE11.2](#)

COMMENTS

SWMS utilizes a range of integrated data sources to support informed decision making and ensure safe, efficient and timely delivery of services. These data sources include tonnage data, asset information, geospatial data, operational performance data and 311 SR data.

Tonnage data provides insight into waste volumes, seasonal fluctuations and diversion performance and is critical in planning and allocating sufficient resources, identifying trends and forecasting budget. Asset information of public space bins, curbside collection bins and fleet supports the Division with asset lifecycle management, and when combined with geospatial data, provides recommendations related to the safe and efficient coordination of collection routes based on bin capacities and fleet specifications.

Geospatial data enables mapping of public space cleaning areas, routing of collection vehicles and the ability to identify high-demand locations or areas. Geospatial data when combined with asset information also allows for route optimizations and safe operations with the incorporation of Vision Zero initiatives and ensures timely service delivery across Toronto.

Operational performance data, including 311 SR data, helps monitor service delivery performance, provide insight into contractor performance and support continuous improvement initiatives with the monitoring of response times, reliability rates and customer service standards. 311 SR data from the Customer Experience Division (CXD) plays a critical role in the daily operations of SWMS, providing insights for

planning and prioritizing work, assigning resources, supporting performance management, and informing long-term strategic planning.

For SWMS, CXD is the first point of contact for customers and the public regarding solid waste matters. Through 311, residents can request services, provide comments and compliments and dispute the resolution of a request for service. In 2025, SWMS received 184,123 SRs and addressed 91.5% of them within the service standards.

Collaboration with Customer Experience Division (CXD)

SWMS works closely with CXD to ensure efficient and consistent service delivery. This collaboration includes:

- Designing standardized SR intake questions, scripting logic, and tracking of service requests.
- Clearly communicating to the public, the expected service standards for every divisional service request type used by CXD.
- Reviewing opportunities for improvement to SR creation to reduce error and improve the accuracy of the information being gathered.
- Actively engaging in customer-focused improvement efforts such as "Closing the Loop" to ensure SR outcomes have better public transparency.
- Maintaining an up-to-date internal "knowledge base" that enables CXD Customer Service Representatives to provide accurate, real-time solid waste related information to customers by phone
- Ensuring customer service information is accurate and easy to navigate on the City's public web page.
- Participating as key customer service improvement change champions at cross-divisional collaboration meetings.
- Structured and consistent input of 311 SR data to support proactive issues management, performance monitoring, and ongoing accountability for contractor service delivery.

Current work by SWMS staff includes collaborating with CXD to review existing SR intake script messaging to ensure SRs are created correctly to trigger the appropriate operational response via the 311 system. These improvements will help ensure that SRs are accurately captured enabling more effective service analysis, monitoring, and delivery.

Role of 311 Service Request Data in SWMS

SWMS services approximately 452,500 single family homes, 9,850 Residential Units Above Commercial (RUAC), 4,085 Multi-residential addresses (373,600 units), more than 1,000 Charities, Institutions and Religious Organizations (CIROs), 500 Department Agencies and Commissions (DACs), 730 schools and 6,576 commercial properties. As part of its service delivery, SWMS responds to a wide variety of SRs including but not

limited to, collection service calls, bin maintenance requests, new customer set-up requests, litter cleaning requests, and notifications of overflowing litter bins.

Service Request data allows SWMS to:

- Actively monitor that service level standards are being met
- Make data-driven decisions which support continuous improvement activities (i.e. identifying opportunities for service-level enhancements)
- Plan and schedule daily bin deliveries, bin exchanges and bin repairs by validating service codes with collection schedule data that is embedded in TMMS (current electronic work management software system)
- Review and analyze requests for bin size exchanges, additional bins, and repair or replacement of damaged assets to identify any recurring trends and to monitor bin contractor performance
- Analyze and monitor Collection & Litter Operations (C&LO) internal Key Performance Indicators (KPI), including:
 - monthly service standard performance report for all operating business units (i.e. all curbside collections including contracted and in-house areas and public space cleaning activities)
 - monthly single-family reliability reports summarizing service request data together with the total number of household service interactions (SWMS has over 57 million household collections per year) and total number of households to create an overall monthly percentage of service reliability
 - a detailed section-wide reliability comparison report which is a year-over-year review of all collection-related services compiled for each service unit.

Table 1 below, *2025 Service Level Agreement Rates (SLA)*, highlights three key operating areas in the service category column. The reliability rate is the metric used to indicate the percentage of bins collected without a service request (total number of collections divided by missed collections). If there is a missed collection (currently a 0.05 per cent probability) the outcome is that it will be addressed 93.09 per cent of the time within the service standard.

Table 1: 2025 Service Level Agreement Rates

Service Category	Reliability Rate	# of Service Requests*	Service Level Agreement**
All residential daytime curbside collections***	99.95%	54,483	93.09%
Litter bin collections	99.94%	15,622	96.86%
Public space cleaning	not available****	12,899	97.03%

Service Category	Reliability Rate	# of Service Requests*	Service Level Agreement**
Parks bins collections	99.96%	1,184	98.35%

*Total service requests created that includes all closed and cancelled

**SLA rates vary between service request codes, e.g. missed collections-24hrs, overflowing bins-24hrs, dispute SRs-2 business days, illegal dumping 3-business days, etc.

***This includes SR data for Districts 1-4.

****Reliability rate not available due to data limitations related to a variety of operational activities and various service schedules.

Contract Monitoring

C&LO contract management staff utilize 311 SR data as a tool to monitor contractor compliance and support day-to-day operations. Staff review 311 SR data on a daily basis to identify trends and issues, including dispute SRs for missed collections and reported whole streets missed. Contract management staff also review open SRs, with a focus on identifying escalated issues. Any concerns identified through this process are immediately escalated to contract management staff, who follow up directly with the contractor to ensure any timely resolution required.

SWMS contracted collection service providers also have controlled access to 311 SR data and have dedicated staff who monitor, respond to and close any incoming SRs.

City staff meet quarterly with contracted collection service providers to review the trending of SR data with a focus on:

- SR response times measured against contractual service standards
- A review of any cancelled SRs.

In instances where response times are not meeting the service standards, contractors are required to provide an action plan to address any performance concerns.

Extended Producer Responsibility Transition Special Project Data Support

311 data was critical throughout the Extended Producer Responsibility (EPR) recycling transition providing SWMS with close to real-time change management insights. In early 2026, SWMS staff worked with CXD to have Customer Service Representatives (CSRs) track and monitor the nature and volume of residential recycling calls received by the City via 311 following the EPR transition. A survey tool was used for CSRs to track a range of residential recycling concerns, such as missed collections, bin maintenance requests, Circular Materials' bin sticker requests, service provider complaints, and general inquiries. This provided the City with additional data insights on the status of EPR transition with regards to the types of concerns that were being reported by residents regarding recycling, and where they occurred as well as month-over-month trends.

Public Space Bin Collections

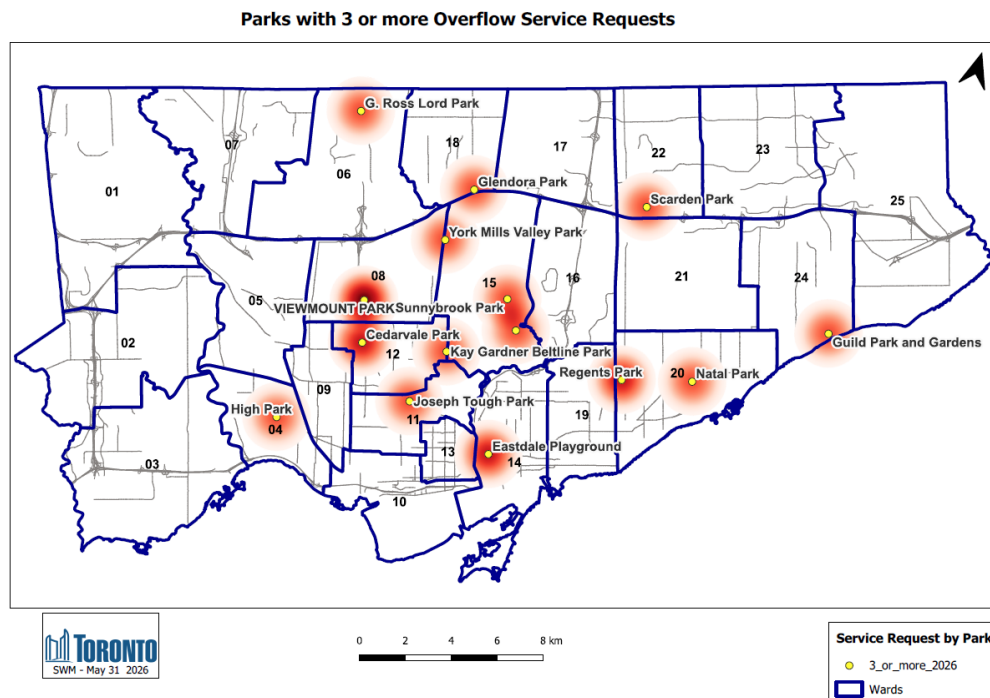
Parks Bins

SWMS is responsible for waste collection and servicing of approximately 12,400 garbage, recycling, and organics bins in City Parks. Residents and parks visitors are able to create 311 SRs to report overflowing bins, damaged bins, graffiti on bins, or missing bins, as well as to request new bin installations or relocations.

To help determine if service frequency changes are required, staff are regularly reviewing 311 SR data to determine if there are any overflowing bin “hot spots” in high-demand parks, and any repeat 311 SR problem locations. Since the incoming information includes the geographic location of the SR and material type collection, operations can proactively adjust service levels as needed. This information supports operational planning and resource allocation by informing adjustments to collection frequencies, bin placements, and assists with collection routing based on seasonal trends and usage patterns.

SWMS also utilizes public space bin collection 311 SR data to develop geographic heat maps that visually represent concentrations of SRs across the city. The heat maps transform text-based complaints into actionable geographic density data, allowing staff to quickly identify areas experiencing persistent service pressures. Refer to *Figure 1: Overflowing Parks Bins* below for a heat map created in 2026 identifying SRs that have occurred three or more times for the same bin. The percentage of bins that had three or more overflowing service requests during this time period represents 0.12 per cent of all parks bins (15 service requests/12,500 total bins).

Figure 1: Overflowing Parks Bins, January 1, 2026 to May 31, 2026*



*SWMS does not collect park bins on the Toronto Islands

On-Street Litter Bins

SWMS is responsible for the collection and removal of waste materials from approximately 10,500 on-street litter bins across Toronto. Collection frequency is based on several criteria including the location of a litter bin (i.e. at a busy transit stop, in a Business Improvement Area etc.), public activity in the area, and seasonality. For example, litter bins in downtown areas and Business Improvement Areas (BIAs) are typically serviced daily with some receiving more frequent collection, while litter bins in areas with less pedestrians may be collected twice per week. With over 50,000 litter bin collections taking place weekly mostly on busy arterial roads, litter bins collections are completed primarily at night to improve efficiency of collection, reduce traffic congestion and to ensure public and staff safety.

SWMS uses 311 SR data as a critical input to monitor and identify litter bins requiring collection. Residents report overflowing bins through 311, and this data is used to:

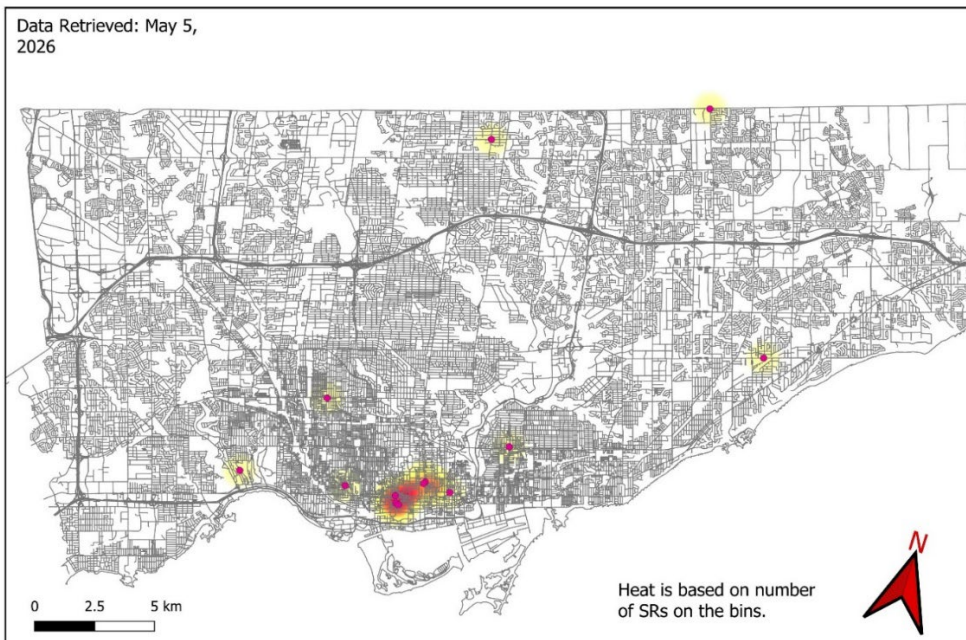
- Deploy crews to respond to overflowing litter bins outside of the normal collection schedule on a daily basis
- Map and visualize high-demand or "hot spot" locations (i.e. recurring SRs of three or more generated in a given year)
- Adjust collection frequencies or service routes in response to observed demand
- Prioritize operational resources and deploy crews more efficiently.

Service level performance is closely monitored daily. The service standard to respond to reports of overflowing litter bins is within 24 hours. In 2025, SWMS received 1,576 valid litter bin SRs. The operational performance achieved for response within the performance standard was 97 per cent. Litter bin collection operations regularly achieve a 99 per cent reliability rate. This means that for the 50,000 litter bin collections scheduled weekly, 99 per cent of the time the bins were collected before an overflowing bin SR was created.

Although most collections are part of scheduled routes, 311 SR data provides a reactive lens that complements operational planning, ensuring that emerging issues, such as sudden spikes in usage or special events, are captured and addressed quickly. 311 SR data is also used to visually highlight high demand locations, such as recurring overflow SRs to help operations balance routes, schedule more frequent collections or make recommendations regarding bin locations or additional bins. *Figure 2: Overflowing Litter Bins* below depicts a heat map of sidewalk litter bins that generated three or more overflowing service requests for the period of January 1, 2026 to May 5, 2026. The percentage of bins that had three or more overflowing service requests during this time period represents 3.79 per cent of all litter bins (13 locations with 3+SRs/343 service requests created).

Figure 2: Overflowing Litter Bins, January 1, 2026, to May 5, 2026

City of Toronto Bins with 3+ SRs 2026



To further enhance service delivery, SWMS is currently conducting a pilot program that uses litter bin sensors to detect fullness levels and optimize collection timing across several street litter bins, further reducing requests. 311 SR data has been used to determine some locations to pilot the sensors.

Future Operational Planning

In close collaboration with the Technology Services Division, SWMS is in the process of transitioning and upgrading the current TMMS electronic work management system used to manage SRs with a new work management system (Maximo) with an expected launch date in mid-to-late 2027. Maximo will enable real-time updates to customers related to SR information, more detailed investigation and closure notes, enhanced reporting capabilities, mobile solutions and overall improvements to the customer experience.

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SIGNATURE

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