

Data Comparison of In-House and Contracted Waste Collection

Date: December 14, 2021

To: Infrastructure and Environment Committee

From: General Manager, Solid Waste Management Services and Chief Procurement Officer, Purchasing & Materials Management Division

Wards: All

SUMMARY

The City of Toronto (City) currently provides daytime curbside waste collection service through a hybrid model with Collection Districts (Districts) 1 and 2 of the city collected by contracted service providers (service providers) and Districts 3 and 4 collected by in-house City staff. In November 2021, Toronto City Council authorized Solid Waste Management Services to award a contract for contracted collection service in District 1. As part of this item, a report back to the Infrastructure and Environment Committee was requested on specific data comparisons around service between each of Toronto's Solid Waste Management Districts regarding:

- a. costs, including annual increases and how costs are calculated;
- b. number of complaints (via 311 and direct to contractors);
- c. penalties to service providers;
- d. warnings to service providers;
- e. diversion rates;
- f. contingency fees of previous contracts; and
- g. waste contamination rates.

This report will provide details on the data and information requested above on contracted and in-house daytime curbside waste collection services.

RECOMMENDATIONS

The General Manager, Solid Waste Management Services and the Chief Procurement Officer, Purchasing & Materials Management Division recommends that:

1. Infrastructure and Environment Committee receive this report for information.

FINANCIAL IMPACT

There are no financial implications resulting from this report.

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

DECISION HISTORY

At its meeting on November 9, 10 and 12, 2021, City Council adopted with amendments, Item IE25.3 entitled "Award of Request for Quotation Ariba Document Number 3047717744 to GFL Environmental Incorporated for Curbside Collection Services in Etobicoke Area (District 1)". Amongst other directions, City Council requested the General Manager, Solid Waste Management Services and the Chief Procurement Officer, Purchasing and Materials Management Division to report to the January 2022 meeting of the Infrastructure and Environment Committee on specific data comparisons around service between each of Toronto's Solid Waste Management collection Districts.

The City Council decision document can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE25.3>

At its meeting on February 2, 2021, City Council adopted item IE19.7 entitled "Extended Producer Responsibility Transition Update – Curbside Collection Strategy" which provided information related to the District 1 and District 2 curbside collection contracts in anticipation of the transition to Extended Producer Responsibility and with the recommendation to direct that Confidential Attachment 1 to the report (December 18, 2020) from the General Manager, Solid Waste Management Services remain confidential in its entirety as it relates to commercial or financial information that belongs to the City and has potential monetary value, and it involves a position, plan, procedure, criteria or instruction to be applied to any negotiation carried on or to be carried on by or on behalf of the City.

The City Council decision document can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE19.7>

At its meeting on September 30, October 1 and 2, 2020, City Council adopted Item IE15.4 entitled "Transition of Toronto's Blue Box Program to Extended Producer Responsibility". Amongst other directions, City Council authorized the General Manager, Solid Waste Management Services or designate to negotiate and enter into any new agreements or amending agreements (including but not limited to amending agreements to receive external funding) necessary for the City's continued waste diversion operations until the latter of December 31, 2026 or the transition period end date indicated by the *Resource Recovery and Circular Economy Act, 2016*, or the *Waste Diversion Transition Act, 2016*, or any regulations thereunder, on terms satisfactory to the General Manager, Solid Waste Management Services and each in a form satisfactory to the City Solicitor and conditional on approved funding.

The City Council Decision document can be viewed at:
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE15.4>

At its meeting on June 18 and 19, 2019, City Council adopted Item IE5.10 entitled "Management of Solid Waste Contracts under Transition to a Full Extended Producer Responsibility Model". City Council adopted recommendations in Confidential Attachment 1 to the report in regards to unit pricing per tonne for waste collections. In addition, the General Manager, Solid Waste Management Services and/or designate was authorized to negotiate and enter into any new agreements or amending agreements (including but not limited to amending agreements to receive external funding) necessary for the City's continued waste diversion operations throughout the transition period under the *Waste Diversion Transition Act, 2016*, based in part on the recommendations on pricing set out in the Confidential Attachment 1 to the report (May 15, 2019) from General Manager, Solid Waste Management Services and each in a form satisfactory to the City Solicitor.

The City Council Decision document can be viewed at:
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE5.10>

At its meeting on April 1, 2014, City Council adopted Item AU14.5 entitled "District 2 Curbside Collection Contract – Review of Cost Savings and Opportunities for Improving Contract Monitoring which evaluated the adequacy and effectiveness of contract management and administrative controls to ensure diversion targets, customer service targets and cost savings were achieved and reported on significant cost savings achieved since the implementation of the District 2 contract. It also provided 15 recommendations to improve contract monitoring and enhance contract management.

The City Council Decision document can be viewed at:
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.AU14.5>

COMMENTS

Districts 1 and 2 (west of Yonge Street) are collected by service providers and Districts 3 and 4 (east of Yonge Street) are collected by in-house City staff. A District map is provided below in Figure 1.

Figure 1 - Map of Daytime Curbside Waste Collection Districts



In 2019, in anticipation of the Extended Producer Responsibility regulation, City Council provided the General Manager of Solid Waste Management Services with the authority to enter into or renegotiate service contracts related to the Province of Ontario's transition to Extended Producer Responsibility for the Blue Box program. This was to ensure a timely and efficient transition to Extended Producer Responsibility for Toronto and continued collection and diversion of Toronto's waste throughout the transition timeline.

As part of the Extended Producer Responsibility Transition Update – Curbside Collection Strategy report, City Council approved the retendering of District 1 with a term commencing in July 2023. Miller Waste Systems Inc. (Miller Waste) is the current service provider for District 1. Subsequently, City Council authorized the award of a contract to Green for Life Environmental Incorporated (Green for Life) as the new service provider starting July 2023 for a five-year initial term with two additional, one year optional extension terms for 2028 and 2029. The new contract takes into account the Blue Box transition to Extended Producer Responsibility and allows for operational flexibility as Toronto transitions into the new program.

Green for Life is the current service provider for District 2. As part of the Extended Producer Responsibility Transition Update – Curbside Collection Strategy report the General Manager, Solid Waste Management Services was provided the authority to negotiate and enter into contract extensions in order to transition to Extended Producer Responsibility. The contract has been extended to 2026.

Waste Collection Costs

Collection Cost Drivers

The budgeted and actual costs for collection contracts for Districts 1 and 2 are primarily driven by the tonnages of waste (mainly garbage, Blue Bin recycling, Green Bin organics, and yard waste) collected and calculated using associated unit rates. Rates are set as per terms in the related contract and include terms for annual Consumer Price Index adjustments. The increases are different between contracts as the Consumer Price Index for these contracts are based on different index periods as they

are tied to contract term dates (Miller Waste is based on the July index, Green for Life is based on the August index). The Consumer Price Index was at a negative value in 2020. Therefore, rates were not increased in that year and remained the same as the prior year. In 2021, there was a 3.5 per cent increase applied to the Miller Waste contract rates and a 3.9 per cent increase applied to the Green for Life contract rates.

In-house collection costs are mainly driven by salaries and benefits for City staff. Fleet vehicles and equipment, repair and maintenance and fuel are also key cost drivers. The majority of Inter-Divisional Charges impacting in-house collection costs are fleet related.

A total of 187 collection vehicles are used for in-house curbside collection. District 3 operations utilize a fleet of approximately 98 collection vehicles with an estimated 22 vehicles shared with Nights Collection operations. District 4 operations utilize a fleet of approximately 89 collection vehicles. In addition to these collection vehicles, additional small vehicles are used for operational oversight in both Districts. The estimated replacement value of the noted vehicles is approximately \$80 million, which translates to an annualized replacement cost of approx. \$14 million attributable to District 3 and District 4 collection as outlined in Table 1 below. Annual contributions to the vehicle reserve are aligned as needed to ensure adequate reserve balances to support timing of new vehicle purchases.

Table 1- Average Annual Capital Vehicle Replacement Costs

	2019 Annualized Replacement Cost	2020 Annualized Replacement Cost
District 3	\$ 6,441,102.15	\$ 6,441,102.15
District 4	\$ 7,564,583.57	\$ 7,564,583.57
GRAND TOTAL	\$ 14,005,685.72	\$ 14,005,685.72

Comparison of Collections Costs by District

The operating costs for each District from 2019 to 2020 as well as the year-over-year percentage change is shown in Table 2 below. In District 1 the contracted costs were close to budget for 2019 and higher in 2020 and District 2 contracted costs were close to budget in both years. In Districts 3 and 4 in-house collection costs were lower for 2019 and 2020 than what was budgeted. It is important to note for contracted collection costs, that the main drivers of cost (material volume and the Consumer Price Index) behave and impact costs independently. For example, as discussed above, in 2020 there were no contract rate increases due to the Consumer Price Index being a negative value, so the rates in 2019 and 2020 were the same. However, actuals for that year not only exceeded budget, but the year-over-year change from 2019 to 2020 was greater than budgeted due to an increased amount of tonnages. In addition, volumes can be variable and impacted by factors that could vary between Districts, such as housing demographics, types of household properties, extreme weather events causing increases in material set out or inability to set out materials and other unforeseen circumstances. For example, the COVID-19 pandemic resulted in changes to volumes of some materials collected which were not anticipated. As such, budget allocations are estimates based on variable factors. Cost drivers need to be considered separately when interpreting actual costs.

Table 2 - 2019-2020 Operating Collection Costs*

	2019 Actuals	2020 Actuals	% Change
District 1	\$ 9,467,606	\$ 10,158,487	7.3%
District 2	\$ 20,171,622	\$ 21,991,017	9.0%
<i>Subtotal - Contracts</i>	<i>\$ 29,639,228</i>	<i>\$ 32,149,505</i>	<i>8.5%</i>
District 3	\$ 17,909,209	\$ 17,447,431	-2.6%
District 4	\$ 13,758,858	\$ 13,713,756	-0.3%
<i>Subtotal - In-House</i>	<i>\$ 31,668,067</i>	<i>\$ 31,161,188</i>	<i>-1.6%</i>
GRAND TOTAL	\$ 61,307,296	\$ 63,310,692	3.3%

*Operating Costs in Districts 1 and 2 include collection contract costs and City staff salaries and benefits for contract monitoring and oversight. Operating Costs in Districts 3 and 4 include City staff salaries and benefits, fleet repair and maintenance and fuel. Operating costs presented above exclude contributions to the vehicle reserve.

Salaries

In-house City staff salaries and benefits are governed by Collective Bargaining Agreements (including Cost of Living Allowance increases for Solid Waste Collection Operators and Step or within Grade increases). Service providers must adhere to the Fair Wage policies as set out in the contracts. Specific salaries and benefits for service providers are not publicly available but must meet the Fair Wage rates at a minimum. The in-house City staff and Fair Wage rates are provided below in Table 3.

Table 3 - Hourly Rates for Collections Staff

	Base Hourly Rate*	Hours Per Week
District 1 (Miller Waste)**	\$21.97	44
District 2 (Green for Life)**	\$21.97	44
In-House (City staff)	\$29.87	40

*All hourly rates exclude benefits

**Minimum based on fair wage policy rates. Actuals for service providers are not publicly available.

Service providers are meeting the Fair Wage rates at a minimum to remain in compliance with the contracts. The new contract for District 1 will apply a Consumer Price Index rate of three per cent to the Fair Wage rates to align with the contract start date in 2023.

2014 District 2 Contract Auditor General's Report

Provision of District 2 daytime curbside collection switched from in-house City staff to service providers through contract in 2012. The Auditor General's Office conducted an audit of the District 2 Green for Life daytime curbside collection contract which was reported to City Council in April 2014. The audit covered the first year of the contract.

Staff had estimated that there would be a cost savings of approximately \$11.9 million in the first year and \$11.1 million for each subsequent year. Findings from the audit show that cost savings of approximately \$11.5 million were achieved in the first year when compared to annual costs before collection in this District was contracted out. This included \$10.8 million in ongoing savings and \$0.7 million in net one-time savings.

Number of Service Requests

Service requests related to the curbside collection of waste are received through 311 and directed to Solid Waste Management Services staff and service providers. Table 4 shows the number of service requests received for all Districts from 2019 to 2020, as well as the service reliability, which is based on the number of service requests compared to the number of collection stops per household per year. Data analysis presents high and comparatively similar service reliability amongst all Districts demonstrating resident satisfaction across the city.

Table 4 - 2019-2020 Daytime Curbside Collection Service Requests

	2019	2019	2020	2020
	# Service Requests	Service Reliability	# Service Requests	Service Reliability
District 1	6,254	99.94%	4,393	99.96%
District 2	8,264	99.96%	7,050	99.97%
Subtotal Contracted Collections	14,518	99.96%	11,443	99.97%
District 3	6,776	99.96%	1,275	99.99%
District 4	4,875	99.97%	4,973	99.97%
Subtotal In-House Collections	11,651	99.97%	6,248	99.98%
Grand Total	26,169	99.96%	17,691	99.97%

Liquidated Damages and Warnings to Service Providers

The collection contracts for Districts 1 and 2 each contain provisions which allow the City to collect liquidated damages. Liquidated damages are contractually prescribed amounts accepted by the service provider if a breach were to occur, thereby avoiding the need for any dispute resolution processes, including litigation. To date, there have been no liquidated damages or official warnings administered to either service provider under the current contracts.

Any complaints received regarding curbside collection are logged as service requests that are sent daily to service providers for their review to address and issue corrective action. Service providers are able to access the City's database to view and respond directly to service requests. Escalated service requests and complaints are dealt with immediately by communicating with the service provider, thereby avoiding liquidated damages. Service providers are expected to respond to all complaints within set service standards which are the expected timeframes to complete an action and are specific to the type of service request. The same service standards are applied to all

requests regardless of service provider (both in-house and service providers). High priority service requests have a service standard of 24 hours (for example, recycling missed).

City staff communicate with the service providers on a daily basis to resolve issues as they arise, including to address any repeated issues of non-compliance. Quarterly meetings are held between City staff and the service providers to discuss general customer service trends, operational issues and to advise the service provider of any upcoming changes. Operational issues would include items related to non-compliance as a follow-up to daily communications and as a means to resolve matters without escalation. If reviews of complaints demonstrate they are not within or complying with service standards, this is addressed at these meetings.

Diversion Percentage (Rate) by District

Analysis of tonnage data from the major waste materials collected on single- family routes was used to estimate an approximate diversion percentage collected within each District and are captured in Tables 5 and 6 below for 2019 and 2020 respectively.

Table 5 - 2019 Diversion Percentage (Rate) by District

2019 Tonnes Collected*	District 1	District 2	District 3	District 4
Diverted Material - Blue Bin Recycling, Green Bin Organics, Yard Waste (kilograms per household)	604	538	559	604
Total Material - Diverted material plus Garbage & Residue (kilograms per household)	1,029	1,016	927	987
Diversion Rate (% per household)	59%	53%	60%	61%

*Data source is 2019 tonnages reported to the Resource Recovery and Productivity Authority's Datacall.

Table 6 - 2020 Diversion Percentage (Rate) by District

2020 Tonnes Collected*	District 1	District 2	District 3	District 4
Diverted Material - Blue Bin Recycling, Green Bin Organics, Yard Waste (kilograms per household)	654	573	583	634
Total Material - Diverted material plus Garbage & Residue (kilograms per household)	1,108	1,082	973	1,042
Diversion Rate (% per household)	59%	53%	60%	61%

*Data source is 2020 tonnages reported to the Resource Recovery and Productivity Authority's Datacall.

The diversion rates are slightly higher for the in-house collected Districts versus the contracted collection Districts. It should be noted that the calculations do not consider analysis on the impact of differing neighbourhoods and dwelling types within each District. The types and sizes of household properties and individual consumer buying behaviour may differ between Districts and could be contributing factors towards

calculated weight-based diversion rates. For example, the number of small multi-residential properties collected curbside is higher in District 2 than the others and it is generally accepted that that multi-residential properties have lower diversion rates. This may be a contributing factor as to why the diversion percentage is lower in District 2 as these types of properties are included in single family collection routes.

Service providers and in-house collection staff have very little, if any, impact on diversion rates which are primarily driven by resident behaviour. In a bin- based system, it is difficult for collection operations (both contracted and in-house) to monitor what residents are placing in the bins. To address this challenge the City has Diversion Program Assistants to support monitoring of proper set out and to help provide feedback to households on the proper sorting of waste.

Contingency Fees for Collection Contracts

Both collection contracts have terms for set contingency amounts for a maximum of \$1 million per year of the contract duration. Contingency is required to allow for operational flexibility in the contracts at a competitive price and is also used to respond to urgent matters that arise. For example, there are some areas of the city, such as Ward 5, which are more prone to flooding.¹ When flooding occurs, additional waste cleanup services are required and contingency amounts are used for these additional costs. Tables 7 and 8 below outline the amount of contingency used each year for both contracts along with the rationale for use of the contingency. Included in the rationale are additional yard waste services. To note, additional yard waste services were also provided for Districts collected in-house and were operationally absorbed within those budgets.

Table 7 - Contingency - District 1 – Miller Waste

Year	Budget (\$)	Actuals (\$)	Rationale
2019	\$ -	\$ -	N/A
2020	\$ -	\$ 960	Additional yard waste service
2021*	\$ 2,924	\$ -	N/A

*2021 Actuals are not listed as actuals have not yet been realized for the full year.

Table 8 - Contingency - District 2 – Green for Life

Year	Budget (\$)	Actuals (\$)	Rationale
2019	\$15,487	\$ 27,506	Passover special collection services (April) and additional yard waste service
2020	\$15,487	\$ 6,010	Flood cleanup (July), mixed waste audit and additional yard waste service
2021*	\$15,760	\$ -	N/A

*2021 Actuals are not listed as actuals have not yet been realized for the full year.

¹ Lorrain, N., & Dhalla, S. (2020). Blackcreek at Rockcliffe Special Policy Area Flood Remediation and Transportation Feasibility Study. Toronto and Region Conservation Authority. <https://pub-trca.escribemeetings.com/filestream.ashx?DocumentId=5929>.

Waste Contamination Rates by District

Solid Waste Management Services began conducting curbside single-family Blue Bin recycling inspections. However, inspections were suspended in 2020 and 2021 due to the COVID-19 pandemic. Inspections were conducted by Diversion Program Assistants to identify Blue Bins that were contaminated. These Blue Bins were not collected as recycling, were tagged with a notice for the resident indicating why the material was not collected and included educational materials on proper sorting. The percentage of Blue Bins that were deemed contaminated out of the total number of Blue Bin inspections by District is shown in Table 9 for 2019.

Table 9 - 2019 Blue Bin Contamination Inspections

		# Bins Inspected	# Contaminated Bins	% Bins Contaminated
2019	District 1	75,136	2,078	2.77%
	District 2	132,748	3,554	2.68%
	District 3	74,817	2,707	3.62%
	District 4	107,086	3,940	3.68%
	Total/Average	389,787	12,279	3.15%

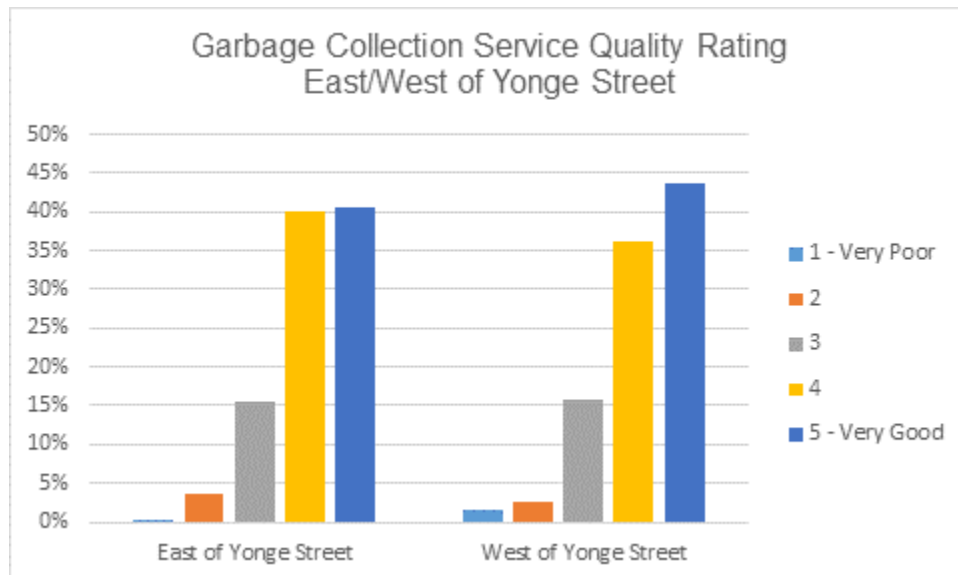
Based on these Blue Bin inspections, it is the opinion of City staff that the collection service providers do not influence the waste contamination rates, but rather, that they are driven by resident behaviour. All collection service providers are required to leave behind any bins with visible contamination (black garbage bags or other contaminated material observed or overflowing from the bin).

Analysis on Resident Satisfaction

City staff recently analyzed raw data from the Citizens First 2020 report, which was based on a survey that was reflective of Toronto's population according to census parameters (polled over 600 Toronto residents).² This information provided insight into how satisfied Toronto residents were with the quality of their waste collection services. The City Manager's Office used this data to compare satisfaction east (in-house) and west (contracted) of Yonge Street. Figure 2 shows that residents east and west of Yonge Street rate their garbage collection service similarly (with roughly 80 per cent of people giving it a four out of five or five out of five rating. However, there were slightly more five out of five ratings west of Yonge Street.

² Citizen First. (2021). Citizens First 2020: City of Toronto Jurisdictional Report. Institute for Citizen-Centred Service. <http://insideto.toronto.ca/at-your-service/files/cf-2020-toronto-report.pdf>.
Waste Collection District Comparison

Figure 2 - 2020 Resident Satisfaction Survey



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