

Utilities & Environmental Protection Report to  
SPC on Utilities and Corporate Services  
2019 January 23

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UCS2019-0113

## **Waste and Recycling Services 2018 Residential Collection Services Review**

### **EXECUTIVE SUMMARY**

Waste & Recycling Services (WRS) engaged consultants to conduct a residential single detached dwelling Collection Services Review for the Black, Blue and Green Cart Programs in 2018. The review included: an analysis of WRS' performance since 2014; a municipal benchmarking analysis of residential collection; an industry scan and strategic analysis; and a financial comparison of the WRS service delivery model to an alternative service delivery model.

To standardize the evaluation of WRS' residential collection services, service value objectives of customer experience, safety, environment and costs were established. However, key value-added components of WRS service delivery to Calgarians were not considered, for example: resources for emergency response and identifying and notifying 3-1-1 of incidents outside of WRS' scope of work.

The key consultant review recommendation is that WRS maintain the public-sector service delivery model for collections, provided regular review, assessment and performance reporting occur. This recommendation was based upon the following Collection Service Review findings:

- WRS has demonstrated cost efficiencies across both manpower and fleet maintenance with collection costs per scheduled service decreasing by 6.5 per cent since 2014, even with labour wage increases and the implementation of the Green Cart Program in 2017;
- WRS residential performance for reliability and responsiveness to service requests is better than or comparable to most reporting municipalities;
- WRS has a competitive advantage, relative to private sector service providers, in attracting and retaining qualified drivers in Alberta's cyclical labour market;
- A mixed service delivery model is the most likely alternative to offer potential cost savings;
- Estimated annual savings of \$425,000 to \$1,275,000 may be achieved through a one-third mixed service delivery model, equating to less than two per cent of WRS' collection costs and a city-wide cost savings of approximately \$1.30 to \$3.90 per household per year; and
- A mixed service delivery model could put two of The City's service values objectives, customer experience and safety, at risk.

Although significant efficiencies have been realized in WRS over time through automation of collection, improvements in fleet maintenance costs, and implementation of industry specific route design software in 2018, there is further potential to reduce costs. Additional measures such as limiting excess garbage collection, developing an alternative fuel strategy, considering moving to a ten-hour work day and advocating for the Province to implement an Extended Producer Responsibility program for recycling are being explored, with reports coming to Council in 2019.

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### **ADMINISTRATION RECOMMENDATION:**

That the Standing Policy Committee (SPC) on Utilities and Corporate Services (UCS) recommends that Council: direct Administration to:

1. Receive this report for information; and
2. Direct Administration to assess and pursue service efficiency opportunities, as identified in the 2018 Collection Services Review, with a report back to SPC on UCS no later than Q2 2020.

### **PREVIOUS COUNCIL DIRECTION / POLICY**

2015 June – Waste & Recycling Services Collection Service Review: Operational Performance & Fleet Management (UCS2015-0324): report received for information.

2015 March – Waste & Recycling Services: Collection Service Review (UCS2015-0220): Council directed Administration to provide city-wide black, blue and green cart residential collection services through a public service delivery model for the remainder of the 2015-2018 business cycle, and to consider an alternate service delivery model in alignment with the 2019-2022 business cycle.

2014 October – Waste & Recycling Services Collection Service Delivery Review (UCS2014-0262): Council directed Administration to report back to SPC on UCS with a recommended collection service delivery model for black, blue and green cart service commencing in 2017 no later than 2015 March and review the consultants' recommendations on operational performance and fleet management and bring a status update to SPC on UCS no later than 2015 June.

### **BACKGROUND**

In 2017 WRS underwent operational change with the implementation of city-wide Green Cart Program (Council direction summarized in UCS2016-0440, Attachment 2) and the change in service level to every-other-week for black cart collection. In 2018 WRS' level of service for the three residential cart based services were: black cart every-other-week; blue cart weekly; and green cart weekly in the summer season and every-other-week for the winter season.

In preparation for the 2019-2022 service plans and budgets, WRS conducted a Residential (single detached dwelling) Collection Services Review for the Black, Blue and Green Cart Programs in 2018. WRS commissioned consultants with industry specific expertise in waste management (Tetra Tech Canada Inc. and Stack'd Consulting) and labour market analysis (HR Align Consulting) to complete the review.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**






The consultants completed several different analyses to conduct a balanced review of WRS' performance in the delivery of residential black, blue and green cart collection services. Results of the 2018 Collection Services Review are summarized in Attachment 1.

The review included an analysis of WRS' performance since 2014, a benchmarking analysis of residential collection with other municipalities, an industry scan and strategic analysis, and a financial comparison of WRS to the private sector for residential cart based service. Combined,

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these evaluations allowed the consultants to make recommendations. Results from these evaluations are included in the investigation below.

A municipal scan comparing residential waste and recycling charges, programs and level of service provided by each municipality is summarized in the table below. Typically, these charges cover full program costs including collection, processing/disposal, education and communications. The municipal scan identifies that WRS' charges remain aligned with those of other municipalities.

Service Delivery Model	Municipality	2019 Annual Fees	Type of Programs	Collection Frequency
Public	Calgary	\$292	<i>unlimited</i> 	Black EOW Blue Weekly Green summer Weekly winter EOW
Mixed	Vancouver	\$299* Black and Green only		Black EOW Blue Weekly Green Weekly
	Toronto	\$347* Black and Green only		Black EOW Blue EOW Green Weekly Yard EOW seasonally
	Edmonton	\$565	Black/Green and Blue & Depots, Reuse Centre, Big bin events and Eco Stations	Black/Green Weekly Blue Weekly
Private	Airdrie	\$255	<i>one bag</i> 	Black Weekly Blue Weekly Green summer Weekly winter EOW
	Cochrane	\$258		Black Weekly Blue Weekly Green summer Weekly winter EOW

\*Ontario and British Columbia have producer-funded recycling programs for blue cart recycling, therefore charges are for Black and Green cart service only.

EOW – every other week.

To standardize the evaluation of WRS' residential collection services, a set of service value objectives were developed: customer experience, safety, environment and costs. Considered together, these objectives support understanding of the overall performance of collection services. However, key value-added components of WRS service delivery to Calgarians were not considered, for example: resources for emergency response and identifying and notifying 3-1-1 of incidents outside of WRS' scope of work.

The consultants' key results and recommendations for the collection service review can be summarized as follows.

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### WRS' Efficiency and Effectiveness Analysis (Attachment 2)

Since the 2014-2015 Collection Services Review, WRS has had major changes to both its services and levels of service. Attachment 2 summarizes the consultants' efficiency and effectiveness analysis of WRS' performance between 2014 and 2018.

- Collection costs have decreased by 6.5 per cent per scheduled service since 2014, even with collective bargaining labour wage increases and the introduction of the Green Cart Program in 2017.
- WRS and Fleet Services have demonstrated cost efficiencies across both manpower and fleet maintenance.
- WRS has been providing reliable, responsive and valued collection services with service reliability performance better than most reporting municipalities and comparable service request responsiveness.

### Industry Scan and Strategic Analysis (Attachment 3)

The consultants completed a qualitative scan of alternative service delivery models and a strategic analysis of the residential collection industry. The following highlights were identified.

- Collection contracts primarily fail due to labour issues with the attraction and retention of qualified drivers.
- In Alberta, over the short-term, the private sector could likely provide reliable, cost effective services and a comparable alternative to WRS collection services.
- In the medium to long-term, the private sector could be challenged to attract and/or retain labour in Calgary, which can lead to higher risk of service unreliability.
- Private service providers may not be able to maintain initial cost savings over the life of the contract.
- WRS has a competitive advantage, relative to private sector service providers, in attracting and retaining labour in Alberta's cyclical labour market.
- Historically, The City has had an effective and positive relationship with the Labour Unions.
- Contracting out part of the service may get an aggressive bid from a private company to win a contract, but they may not be able to maintain initial cost savings over the life of the contract.
- A mixed service delivery model could put two of The City's service values objectives, customer experience and safety, at risk. This is due to the decrease in direct control a municipality has to achieve desired outcomes, a potential conflict between the drive for profit and service quality, and challenges associated with including performance measures within contracts.

### Cost Impact for Alternative Service Delivery Model (Attachment 4)

The consultants recommended a cost comparison to a mixed service delivery model. For consistency with the 2014 review, a contract area of one-third of the residential collection services for black, blue and green carts was determined to be the most appropriate cost comparison for Calgary. The attachment shows the cost comparison between WRS and an ideal private sector service provider.

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- Costs focused on labour including fringe benefits, fleet, miscellaneous business expenses, contract management costs, corporate allocations, and profit.
- Labour: WRS hourly driver labour rate is 10 per cent above the market median and WRS pays more for fringe benefits including pension. In the consultants' financial evaluation, the private sector has been given the benefit of both lower costs and greater efficiency over WRS.
- Fleet: WRS purchases trucks and fuel at the same price as the private sector, typically has a lower interest rate for purchases, and likely spends more on trucks to include ergonomic features. In the consultants' financial evaluation, the private sector has been given the benefit of both lower costs and greater efficiency over WRS.
- Contract management costs of \$775,000 and a private sector profit of 10 per cent were included in the financial analysis.
- Based on the analysis, the estimated annual savings of \$425,000 to \$1,275,000 may be achieved by transitioning to a mixed service delivery model. This equates to less than two per cent of WRS' residential collection costs and a city-wide cost savings of approximately \$1.30 to \$3.90 per household per year.

### Consultants Key Recommendations (Attachment 4)

This attachment summarizes the consultants' recommendations based upon the research and analysis completed.

- Maintain the public-sector service delivery model for residential collections, provided, regular review, assessment and performance reporting occur.
- Manage costs per scheduled service through the 2019 to 2022 cycle in balance with the service value objectives of customer experience, environment and safety objectives.
- Create and maintain performance measures and operational indicators for residential collection services to support annual reporting on progress across all three service value objectives, as noted in Attachment 5.
- Consider extending collection shifts to a ten-hour work day.
- Consider alternative fuel vehicles to further enhance cost savings.

### Benchmarking and Performance Measurement (Attachment 5)

Regardless of the service delivery model, monitoring performance is a critical activity. WRS participates in several initiatives to monitor and compare performance including: Municipal Benchmarking Network Canada; National Solid Waste Benchmarking Initiative; annual Accountability Reports to Council; and The City's EnviroSystem and Safety reporting systems.

Several existing performance measures and benchmarks will support WRS' efforts to continually monitor performance of the residential black, blue and green cart collection system. Use of measures that support all four of the service value objectives will create a balanced representation of overall performance. Attachment 5 shows performance measures for residential collection as they relate to the service value objectives. WRS is also committing to participate in either a zero-based review or another Collection Services Review to inform the 2023 to 2026 service plan and budget cycle.

### Residential Collection Services Summary

## **Waste and Recycling Services 2018 Residential Collection Services Review**

The consultants' key findings upon completing the 2018 Collection Services Review were:

- WRS has been providing reliable, responsive and valued collection services;
- WRS has a competitive advantage to attract and retain qualified labour;
- Specific risks to changing the service model for residential black, blue and green cart collection services include customer experience and safety;
- WRS should develop an annual benchmarking plan to monitor its' indicative performance; and
- A mixed service delivery model likely has the potential for cost savings in the range of \$425,000 to \$1,275,000, equating to a city-wide cost savings of approximately \$1.30 to \$3.90 per household per year.

WRS' Black, Blue and Green Cart Programs offer highly valued services at competitive rates. Significant efficiencies have been realized over time with the introduction of automated collection, cost improvements in fleet maintenance, and the implementation of industry specific route design software in 2018.

The potential exists to further reduce collection costs for the Black, Blue and Green Cart Programs. The consultants have recommended WRS consider extending collection shifts to a ten-hour day and developing an alternative fuel strategy. In addition, WRS continues to explore cost cutting opportunities such as: limiting excess garbage collection, in-truck technology and advocating the Province to implement an Extended Producer Responsibility (EPR) program for recycling. Reports will be coming to Council in 2019.

### **Stakeholder Engagement, Research and Communication**

Other municipalities that have experience with alternative collection service delivery models were engaged regarding information on their services, levels of service and performance. Tetra Tech Canada Inc. and Stack'd Consulting completed strategic and analytical evaluations. HR Align Consulting conducted a labour market analysis of Class 3 drivers.

Citizen satisfaction with WRS continues to be consistently and highly valued. In 2018, citizen satisfaction with residential collection programs were:

- 88 per cent with residential garbage (black cart) collection;
- 91 per cent with residential blue cart recycling; and
- 78 per cent with green cart service (Ipsos Reid surveys, Spring Pulse and November 2018).

WRS has consistently delivered high-quality services that are important to citizens. These results largely demonstrate increased satisfaction of residential cart-based programs as they mature.

### **Strategic Alignment**

The Collection Services Review aligns with the 2019-2011 Council Directive for A Well-Run City:

W2 – We need to shift our understanding and focus from how services are delivered to why services are delivered. The City must work on improving the value of municipal services delivered by simplifying and streamlining processes and procedures, cutting red tape, eliminating service silos, and discontinuing those services that The City should not

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be providing. Beyond removing barriers, The City must move to a culture that actively promotes businesses.

### **Social, Environmental, Economic (External)**

#### *Social*

Customer experience of residential collection services needs to be consistent, reliable, and responsive to inquiries. Issues will be resolved in a timely, accurate and courteous way. At the same time residential black, blue and green cart collection services need to be performed in a way that ensures public and worker safety, while protecting public and private property.

#### *Environmental*

The City has a culture which focuses on environmental outcomes. For residential collection services, this places emphasis on greenhouse gas emissions and spills. Reductions in these aspects helps to protect air, land and water. As well, collection drivers facilitate diversion in the cart based programs through their cart tagging and education efforts.

#### *Economic (External)*

Ongoing evaluation of WRS' collection system to identify efficiencies minimizes the cost of the services WRS provides to Calgarians.

### **Financial Capacity**

#### ***Current and Future Operating Budget:***

There are no direct impacts to WRS operating budget with these recommendations.

#### ***Current and Future Capital Budget:***

There are no direct impacts to WRS capital budget with these recommendations.

### **Risk Assessment**

Continuing with the public-sector service delivery model for collections could lead to potential risks, including:

- customers not realizing potential savings from potentially lower cost service delivery model options;
- potential future city budget constraints may lead to a decreased level of service;
- potential for labour negotiations to impact costs and citizen customer service experiences; and
- though unlikely given the current economic climate and past performance, lack of competition could create complacency instead of striving for further efficiencies.

Anticipated risks with contracting out residential collection services include:

- initial savings promised to customers might not be realized over the term of the contract;
- aggressive bids and large contracts create less competitive markets over time resulting in potentially smaller cost savings;
- potential motive for profit becomes more important than quality service;
- failure to meet performance expectations for customer experience and safety;

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- service levels impacted by contract default from lack of driver attraction and retention, especially in challenging cyclical labour markets; and
- service quality may suffer due to the difficulty of including qualitative performance measures within contracts.

It should also be noted that initiating and managing contracts may compete for available resources and other WRS strategic efforts, such as Pay-As-You-Throw (PAYT). Contract costs can also be negatively impacted by the desire to include flexibility to allow for future system changes. For example, a fixed contract term could result in delayed savings for citizens from Extended Producer Responsibility (EPR) implementation in Calgary.

#### **REASON(S) FOR RECOMMENDATION(S):**

Since 2014, WRS' performance shows: improved collection costs per scheduled service; collection reliability performance that is better than most reporting municipalities; and comparable responsiveness to service requests.

WRS' Black, Blue and Green Cart Programs offer highly valued services at competitive rates. Significant efficiencies have been realized over time with the introduction of automated collection, cost improvements in fleet maintenance, and the implementation of industry specific route design software. The consultants have recommended WRS consider extending collection shifts to a ten-hour day and developing an alternative fuel strategy to realize further efficiencies. In addition, WRS continues to explore cost reduction opportunities such as: limiting excess garbage collection, in-truck technology and advocating the Province to implement an Extended Producer Responsibility (EPR) program for recycling and reports will be coming to Council in 2019.

#### **ATTACHMENT(S)**

1. Attachment 1 – WRS 2018 Residential Collection Services Review Summary
2. Attachment 2 – Efficiency and Effectiveness Analysis
3. Attachment 3 – Industry Scan and Strategic Analysis
4. Attachment 4 – Cost Impact for Alternative Service Delivery Model and Recommendations
5. Attachment 5 – Residential Cart based Collection Benchmarking and Performance Measurement