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## Waste Management Levels of Service – Curbside Organics and Pay as You Throw Waste Utility

### Recommendation

That the Standing Policy Committee on Environment, Utilities & Corporate Services recommend to City Council:

1. That Option 1: year round, bi-weekly organics and waste collection be implemented as the new waste management service level for all curbside residential households;
2. That the new service level for curbside organics and waste collection be funded as a unified waste utility;
3. That \$13.6M in capital funding be approved to implement Option 1 and that funding be borrowed from the future utility;
4. That the compost depots continue to operate with the existing level of service; and
5. That 2019 be the final season for the Green Cart subscription program and that a deadline of April 15, 2019, be implemented for new subscriptions.

### Topic and Purpose

The purpose of this report is to provide service level (collection frequency) options for a city-wide curbside organics and waste collection program. The report also includes details on the range of service level options considered by Administration and the impacts of each of those options including comparative costs, implementation timelines, and FTE requirements.

### Report Highlights

1. The Administration reviewed various service level options and is recommending the service level that best reflects the values approved by Council: year round, bi-weekly curbside organics and waste collection.
2. The Administration recommends no changes to the existing compost depot program for 2019.
3. With the pending implementation of a city-wide organics program, 2019 is proposed to be the final season of the Green Cart subscription program. To reduce program design and operating costs, the Administration recommends a deadline of April 15, 2019, for new subscriptions.

### Strategic Goals

The information in this report supports the four-year priorities to promote and facilitate city-wide composting and recycling, along with the long-term strategy to eliminate the need for a new landfill under the Strategic Goal of Environmental Leadership.

### Background

City Council, at its meeting held on February 27, 2017, considered the Waste Management Master Plan – State of Waste report; and resolved, in part:

- “2. That the values to be used in preparing options for a new Waste Management business model, including the ability to pay in terms of future cost allocations for fairness and equity, be approved.”

This report outlined a list of values (environmental, social, and financial) to be used in assessing potential future business models.

City Council, at its meeting held on June 25, 2018, considered the Recommended Changes to Waste Management in Saskatoon report; and resolved, in part:

- “1. That a Pay as You Throw Utility be developed for curbside residential garbage collection, where households pay a variable utility fee that corresponds to the size of their garbage cart (lower prices for smaller carts);
2. That an organics program be developed for year round curbside residential organics collection, utilizing a single green cart for co-mingled food and yard waste.”

In addition, City Council deferred a recommendation regarding funding for procurement of green carts pending a further report in September 2018.

City Council, at its meeting held on August 27, 2018, considered the Organics Program Update report; and resolved, in part:

- “2. That the Administration report to the appropriate committee with a cost comparison analysis and recommendation on collections with a view whether collections will be done in house or go to tender.”

## **Report**

### Service Level Options for Organics and Waste Collection

Administration has conducted a significant amount of research on organics and Pay-As-You-Throw (PAYT) waste programs. Based on the environmental, social, and financial values that were approved by Council, the Administration is recommending year-round, bi-weekly organics and bi-weekly waste collection (Option 1) as the lowest cost and most optimal service level for Saskatoon.

The options below reflect the different combinations of collection frequencies for waste and organics as well as the capital costs to implement each service level. For the purpose of comparing service level options, a comparative cost per household, based on a monthly utility charge is also identified. Additional information is included in Attachment 1.

**Table 1: Service Level Options for Organics and Waste Collection**

	<b>Collection Frequency Summer*</b>	<b>Collection Frequency Winter*</b>	<b>Utility Charge (Comparative Cost/hh/mo)**</b>	<b>Capital Costs</b>
1	Organics: Bi-weekly Waste: Bi-Weekly	Organics: Bi-Weekly Waste: Bi-Weekly	\$20	\$13.6 M
2	Organics: Bi-weekly Waste: Weekly	Organics: Bi-Weekly Waste: Bi-Weekly	\$25	\$18.4 M
3	Organics: Weekly Waste: Bi-weekly	Organics: Bi-Weekly Waste: Bi-Weekly	\$25	\$18.8 M
4	Organics: Weekly Waste: Weekly	Organics: Weekly Waste: Weekly	\$33	\$24.9 M

\*Summer is defined as May through September inclusive. Winter is October through April inclusive.

\*\* Comparative costs (in 2018 dollars, based on program assumptions) for organics and waste collection with a medium sized waste cart. Monthly recycling utility charges (\$5.65/hh/month) are in addition to the amount shown.

The recommended Option 1 for the curbside organics program includes a medium sized (240 L) green cart and year-round, bi-weekly collection for organics and waste. This option would provide the greatest opportunity to optimize existing City trucks, staff, and collection routes and schedules, thereby keeping program costs low for all residents.

Administration has assumed green cart collections will be by City forces as this provides the greatest opportunity to maximize fleet utilization which will improve current unit rates. From a Request for Information issued in early 2018, some private service providers indicated a lower collection cost than City forces; however, these responses are non-binding. When Administration has tendered current collections routes, costs have ranged from \$160 to \$180 per hour. Administration has calculated the internal fleet resources cost at \$140 per hour, a number which would improve if Option 1 were adopted.

Administration recommends that green carts continue to be collected in the same location as the current subscription program and no changes to waste or recycling cart collection locations are proposed at this time. Additional program design options and considerations are included in Attachments 1 and 2.

Once a green cart is made available to all curbside residents, a PAYT program will provide residents with the opportunity to right size their waste cart and reduce costs by sending less waste to the landfill. The Administration recommends three different waste cart sizes be available, with the smallest cart reflecting the lowest monthly charge. The Administration also recommends keeping all existing waste carts in the field until residents request a different size. This will keep cart procurement and deployment costs low, will maximize the life of the existing carts, and will provide residents with more flexibility and choice based on their individual needs. Additional considerations are included in Attachment 2 and considerations regarding illegal dumping and contamination are included in Attachment 3.

### **No Change to Compost Depots**

A city-wide organics collection program is expected to provide a convenient organics disposal option for most curbside households, but some residents may have oversized materials or excess organic materials that do not fit in the cart. The Administration recommends that the two City compost depots continue to operate seasonally with the same level of service in order to provide options for residents and commercial customers to divert organic material from the landfill. Additional information is included in Attachment 2.

### **2019 Subscription Green Cart Program**

With a new, city-wide organics program in development, 2019 is anticipated to be the last season for the subscription green cart program. To maximize the efficiency of capital funds and to optimize internal resources, the Administration recommends a deadline of April 15, 2019, for new subscriptions. Existing subscribers could continue to renew their subscriptions until April 15, 2019. Additional information is included in Attachment 2.

### **Options to the Recommendation**

City Council may choose any of the other service level options or combination of options described within the report and attachments.

City Council may choose to direct the Administration to procure contracted services for organics collection or to implement organics processing internally.

City Council may choose to fund the new level of service for waste handling with a property tax increase. Attachment 4 includes more information related to this option.

City Council may choose to not implement any changes. This will result in a 2.0% increase in the mill rate beyond the indicative rate in order to fund the current level of service for waste management.

### **Public and/or Stakeholder Involvement**

An extensive public engagement took place from February through May, 2018, where over 5,000 residents and stakeholders were engaged. Results were included in the Changes to Waste Management in Saskatoon – Engagement Results report to City Council in June 2018.

### **Communication Plan**

A thorough communications strategy will be developed to effectively reach and educate residents. This is an effort in behaviour change and communications tactics will not only focus on preparing residents for the changes to waste management, but to also communicate the rationale and benefits of such changes in hopes of increasing participation for waste diversion. A detailed communications plan will be developed as part of the implementation plan.

## **Policy Implications**

There are policy implications associated with developing a new organics program and waste utility including changes to the Waste Bylaw. These implications will be outlined in future reports in collaboration with the Office of the City Solicitor.

## **Financial Implications**

### Capital Funding Requirements

Capital funding is required for the procurement and deployment of green and black carts, additional side loader trucks, and program implementation. Option 1 requires the lowest capital investment at \$13.6M as existing trucks can largely be re-allocated. All other options have higher estimated capital requirements as increased collection frequency for waste or organics will result in a higher number of trucks required.

### Operating Impacts

With the addition of a new city-wide organics program, operating costs for waste services will increase. Collections and processing costs have the largest influence on total costs. With the change in service level associated with Option 1, annual operating costs are expected to increase by \$10.5M to \$12.7M above the 2019 submitted budget.

### FTE Requirements

A new city-wide organics program and waste utility will require additional staff positions. Attachment 1 indicates the estimated increase in FTEs required for each service level identified. Option 1 requires 23 additional FTEs; details can be found in Attachment 1.

### Funding Sources

The Landfill Replacement Reserve, the Automated Garbage Container Replacement Reserve and the Reserve for Capital Expenditures do not have sufficient funds for the organics or waste utility program implementation. All capital funding requirements are anticipated to be borrowed against the waste utility and paid back over a ten year period.

### Utility Charge – Comparative Costs

Attachments 1 and 4 outline the comparative costs per household based on a utility funding model. Funding the waste management service level as a utility would result in an estimated 3.5% reduction to the mill rate. Attachment 4 also identifies the estimated cost per household based on a property tax model.

If no changes are made to the current level of service, a 2.0% increase in the mill rate, beyond the indicative rate, will be required in order to sustainably fund waste management services.

## **Environmental Implications**

Diverting organic waste from the landfill reduces greenhouse gas emissions, can provide a beneficial end use to the community as compost or energy generation, and conserves landfill airspace which ultimately extends the life of the landfill. By increasing

organics diversion to 26,000 tonnes, the waste diversion rate is expected to rise from 23% to 33%.

Research conducted by the US Environmental Protection Agency found that waste utility models may improve waste diversion rates by between 6% and 40%. A decrease in the amount of waste collected at the curb ultimately extends the life of the landfill.

### **Other Considerations/Implications**

There are no Privacy or CPTED implications or considerations.

### **Due Date for Follow-up and/or Project Completion**

The Administration will report on the Business Plan and Budget implications in November 2018. If service level changes are approved, the Administration will begin procuring resources in late 2018. Lead time on resources can be 18 months, more information is included in Attachments 1 and 2. The Administration will report back in Q2 2019 on a detailed implementation plan for the curbside organics program and PAYT waste utility.

### **Public Notice**

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

### **Attachments**

1. Additional Information on Service Level Options
2. Additional Information on Program Design Options
3. Considerations on Illegal Dumping and Contamination
4. Additional Information on Financial Implications

### **Report Approval**

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