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## Additional Information for Waste and Organics

### Recommendation

That the report of the Acting General Manager, Corporate Performance Department, dated November 19, 2018, be received as information.

### Topic and Purpose

The purpose of this report is to provide additional information regarding contamination risks, program costs, and communications plans for the contemplated organics and waste program changes.

### Report Highlights

1. With respect to the risk of contamination related to funding models, there is no clear evidence that funding approach impacts contamination. Evidence suggests that program design features that most clearly impact contamination risk include plastic bags, pet waste, diapers, education and collection frequency.
2. Regardless of the source of funding (taxes or utility), the City of Saskatoon applies the same assumed debt repayment amortization period and borrowing rate to capital funds. At the time of writing this report, if the City was to borrow capital funds it has been assumed they will be repaid are amortized over ten years at 3.00% interest.
3. A 'Curbside Waste Redesign Funding Options' information sheet has been created to assist City Council and the public to understand the decisions being contemplated. The information sheet demonstrates the funding model options, the impact of those decisions, as well as the pros and cons to be considered.

### Strategic Goal

This report supports the Strategic Goal of Environmental Leadership by helping provide optimized solid waste diversion and landfill operations.

### Background

City Council, at its meeting held on October 22, 2018, considered three reports on, and relating to, the implementation of a unified waste utility that includes a city wide curbside organics collection. During consideration of the Waste Management Levels of Service – Curbside Organics and Pay as You Throw Waste Utility report, City Council further deferred the following motion to City Council on November 19, 2018.

- “1. That curbside waste collection be funded as a utility;
2. That curbside organics collection be funded as a utility; and  
Pending further information from Administration regarding:
  - Clarification on contamination of organics when funded by the mill rate and waste as a utility;
  - Clarification on the projected amortization period for capital expenditures should organics be funded by the mill rate;

- Additional communication materials
3. That 13.6M in capital funding be approved to implement Option 1 and that funding be borrowed from the future utility.”

**Report**

Contamination Risks

The City has received information from its curbside recycling contractor indicating that diversion programs (i.e. organics and recycling) may become more contaminated if funded through property tax when garbage is funded in a more visible manner through a utility fee. Administration conducted additional research seeking to find clear evidence that this concern could be measured from what has been reported by other communities. Attachment 1, Funding Models and Contamination Risk, provides a summary of this research. The evidence suggests that program design features that most clearly impact contamination risk include plastic bags, pet waste, diapers, education and collection frequency. There is no clear evidence that funding approach impacts contamination.

Capital Borrowing and Debt Repayment in Different Funding Scenarios

Regardless of the source of funding (taxes or utility), the City of Saskatoon applies the same assumed debt repayment period and borrowing rate to capital funds. At the time of writing this report, if the City was to borrow capital funds it has been assumed they will be repaid over ten years at 3.00% interest. The funding source (taxes or utility) provides the annual payments.

In the example of the City Wide Curb Side Organics program, the capital cost for procurement and distribution of collections carts is estimated at \$7M, which based on the assumed repayment terms above means an annual payment of \$850,000. This \$850,000 payment is equivalent to \$0.98 monthly in a utility funding model or a 0.39% increase on the mill rate. Table 1 shows comparisons for these funding sources for different components of the organics program.

*Table 1: Amortized Cost Comparisons for the Organics Program*

<b>Capital Item</b>	<b>Annual Amortized Payment</b>	<b>Equivalent Monthly Utility Impact</b>	<b>Equivalent Mill Rate Increase</b>
Organics Carts <sup>1</sup>	\$ 850,000	\$0.98	0.39%
Additional Fleet <sup>2</sup>	\$ 48,000	\$0.06	0.02%
Program Development <sup>3</sup>	\$ 188,000	\$0.22	0.09%
<b>Total</b>	<b>\$1,086,000</b>	<b>\$1.26</b>	<b>0.50%</b>

<sup>1</sup>This is based on the purchase and deployment of 71,000 240L (65Gal) green carts.

<sup>2</sup>Current estimates only require one additional side arm collection truck based on the selected level of service

<sup>3</sup>Program development costs are estimates that also include a waste utility, should the funding of solid waste remain tax based this development number would be reduced.

Table 1 does not include any borrowing or associated repayments of an organics processing facility, this is because the Administration has not explored internal processing of organics from the city wide curb side organics program. The facility costs

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would be reflected in the cost per tonne charged to the City by the vendor supplying the processing. Through National Solid Waste Benchmarking and the Request for Information, the cost per tonne could be anywhere between \$45 and \$140 depending on the technology and materials selected. Since the processing is intended to be sent out for public procurement it is hoped that this competition will result in competitive rates. Some of the vendors who responded to the Request for Information are currently running organics processing facilities in the Saskatoon area, as a result the City of Saskatoon will not be fronting all of the capital costs of a new facility in the charge per tonne unless that new facility is more competitively priced than existing commercial infrastructure.

Table 1 provides examples of debt repayment costs under a tax or utility funded scenario. The Administration provided a recommendation and alternative funding options in the Additional Information report provided to City Council on October 22<sup>nd</sup>, Table 2 provides a summary of these options. Details on these options can be found in Attachment 1 of the Additional Information for Waste and Organics Cost and Funding report. Similarly to that attachment financially conservative estimates with the medium size cart (where applicable) are presented in Table 2 (refer to Attachment 2 for more information).

Table 2: Summary Comparison of Funding Options

	<b>Recommendation</b>	<b>Opt 1</b>	<b>Opt 2</b>	<b>Opt 3</b>
<b>Description</b>	Full Utility	Waste Utility, Organics Tax	Full Tax Funding	Tax funded with bin fees
<b>Property Tax Impact</b>	-3.5%	0%	4.7%	2.7%
<b>Utility Rate Impact</b>	\$18/month	\$8/month	N/A	\$1.70/month fee
<b>Pros</b>	Equity, Sustainability, Funding Sustainability	Equity, Sustainability	Full Funding	Some incentive
<b>Cons</b>	Cost	Risk of Contamination, Multi-family pay without service	No incentive to waste less, costs are bundled, long term funding competition	Long term funding competition, costs are bundled, Multi-family pay without service
<b>Waste Diversion Potential</b>	High potential	High potential	Moderate potential	Moderate potential

### **Communication Plan**

A 'Curbside Waste Redesign Funding Options' information sheet has been created to assist City Council and the public to understand the decisions being discussed at the November 19 meeting. The information sheet demonstrates the funding model options, the impact of those decisions, as well as the pros and cons to be considered (see Attachment 2).

Once a decision is made on how to fund organics and waste, additional communications will be developed to inform residents, the impact to residents, and what decisions still need to be made in order to proceed with program development and implementation. Various tools will be used to communicate these messages such as news releases, media outreach, social media, emails, and the City website.

A 'back to the basics' social media campaign will also be developed following Council's decision. After several months of debating the proposed change to curbside waste management, the public has been exposed to many details and nuances of the various recommendations. This will present a good opportunity to remind residents why a curbside waste redesign is necessary.

Pending the final decision, consideration will also be given to re-packaging the Pay-As-You-Throw concept into something that is less confusing for residents and better conveys the incentive-based variable rate model for different cart sizes.

### **Financial Implications**

The financial implications will depend on the funding sources selected by City Council for the Organics program. The total amortized costs will depend slightly on the level of service selected and the location of a processing facility if the collections service is supplied by the City of Saskatoon. Should this service be provided by the private sector these costs would be reflected in monthly contract payments made by the City of Saskatoon to the successful vendor.

### **Environmental Implications**

The creation of a city wide curb side organics program will reduce the City of Saskatoon's greenhouse gas emissions by reducing the tonnes of organics that are landfilled, it will also extend the landfill life. The type of funding for the organics program will have a limited impact on the environment, whereas charging for waste can incentivise diversion further improving environmental outcomes.

### **Other Considerations/Implications**

Whether the City or a private service provides collections related to the organics program, a number of new FTEs will be required as outlined in the table below.

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<b>NEW FTEs Required for Organics Collection</b>	<b>City</b>	<b>Private</b>
Administrative Staff (Accounting & Systems)	<b>1.5</b>	2.5
Environmental Protection Officers (EPOs)	<b>2.0</b>	2.0
Collections*	13.7	TBD
<b>Total</b>	<b>17.2</b>	<b>4.5</b>

\*Collection operators, containers staff, supervisory staff and special services collection staff

It is estimated that 25 FTEs are required to provide collections related to a new organics program. However, if the City provided collections, a total of 13.7 new FTEs would be required. This is 11.3 less than identified since the City is able to share resources for waste and organics collections and reallocate FTEs from the existing waste program.

The FTEs requested as part of this program include the conversion of seasonal staff (providing the seasonal green cart and seasonal increased service level for solid waste) to full time staff. Of the 13.7 FTEs required, 3 of these FTEs would represent conversion of 9 seasonal staff to full time.

<b>Waste Collection</b>	<b>FTEs</b>
Current Level of Service for Waste (Weekly Summer, Bi-Weekly Winter)	30.1
Future Level of Service for Waste (Bi-Weekly Year Round)	24.7
Collections staff available to re-allocate to Organics Program	5.4
<b>Organics Collection</b>	
Total FTEs required	25.0+
Reallocated FTEs from Waste Collection	(5.4)
*Internal Efficiencies	(5.9)
<b>NEW FTEs Required for Organics</b>	<b>13.7</b>
Estimated total FTEs Avoided	11.3

\*\*Shared resources for waste and organics collections (collections staff, containers staff, supervisory staff and special services staff)

There are no options, public and/or stakeholder, policy, Privacy, or CPTED implications or considerations.

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

The Administration intends to provide an update on the implementation of the organics program in the second quarter of 2019.

### Public Notice

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

### Attachments

1. Funding Models and Contamination Risk

2. Curbside Waste Redesign Funding Options – November 2018

**Report Approval**

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