
Update on Curbside Recycling Program

Recommendation

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

1. That the City of Saskatoon (City) enter into a pilot program partnership with Sarcen Recycling to expand glass recycling to the four Sarcen Depot locations in Saskatoon.

Topic and Purpose

The purpose of this report is to provide an update on recyclable material market trends and considerations for the contract expiration at the end of 2019.

Report Highlights

1. The Single-Family Residential Curbside Recycling Agreement with Loraas Disposal Services Ltd. (Loraas) expires on December 31, 2019.
2. Global market requirements for the quality of recyclable materials have increased significantly and a new standard for high quality (low contamination) material is now affecting municipal recycling programs in North America. As a result, local processing costs for recycling have risen.
3. Higher costs for residential recycling programs are anticipated as there is less revenue available to recycling processors such as Loraas from the sale of recyclable materials.
4. Approximately 90% of glass is broken by the time it is collected and sorted in the current residential recycling programs. A depot collection option would provide another option to residents and ensure that unbroken glass can be sorted and properly recycled.

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 May 14, 2012, received the Contract Award – Residential Curbside Recycling report and awarded the contract for Single-Family Residential Curbside Recycling to Loraas.

City Council, at its meeting held on February 26, 2018, received the Update on Recycling Markets-Plastic Film report and resolved:

“That plastic film be removed as an acceptable item in City of Saskatoon recycling programs starting in April 2018.”

Report

In 2012, the City and Loraas signed a seven year contract to provide city-wide curbside recycling (collections and processing) to residents to start in January of 2013. The contract ends on December 31, 2019.

At the end of 2017, there were just over 69,500 carts in the curbside program, diverting an average of 10,094 tonnes per year. Results of the 2017 Waste Awareness & Behaviour Survey showed that 94% of residents were satisfied with the overall quality of service received through the single-family curbside program.

Recycling Markets

Markets for recycling commodities have seen a decline over the last five years, with significant changes, in particular, over the last year. China's new standards for the import of recyclable materials has reduced prices in global markets and increased material quality requirements. This has resulted in fewer market options for municipalities and service providers for the recyclable material collected from North American recycling programs. The Administration reached out to several municipalities in Canada, and the majority reported that they are now stockpiling a significant amount of material as a result of poor market conditions.

Recycling markets are weak and the future outlook is one of uncertainty. To add to the complexity, a geo-political situation exists where political decisions are influencing the recycling industry rather than just market demand; even markets for high value material, such as metal, are being impacted by import sanctions of China and the U.S. Detailed information on recycling markets can be found in Attachment 1, Recycling Materials and Markets. Global market requirements for higher quality material (and lower contamination) is expected to now be the 'new normal' for this industry.

Municipal recycling programs are dealing with this situation by investing in improved and expanded material processing to achieve a lower contamination rate, removing lower value material (such as plastic film, glass, etc.) from their programs, finding new market options to handle stockpiled materials, and investing in resident education to reduce contamination. In North America, many programs have had to turn to landfilling and incineration as a last resort for material that has no market.

The implications of rising quality standards has increased the processing costs for recycling. These costs are expected to continue to rise, creating a shortfall in commodity revenues to cover processing costs, meaning a higher cost for residential recycling programs. Further information can be found in Attachment 2, Recycling Processing Costs.

Future of Recycling – The Road to Zero Waste

While the current outlook for recycling is weak, these global changes could spur investment in domestic recycling as well as innovation in manufacturing and design that generates less waste. Some municipalities are using this situation as an opportunity to encourage solutions that move away from a linear system of disposal to a circular

economy that looks upstream at source reduction and restorative design in products and packaging, and downstream to local remanufacturing and reuse solutions.

As a member of the National Zero Waste Council (NZWC), the City can learn from peer municipalities on how to substantially reduce waste, and the associated environmental and economic benefits of waste management through design and behavioural change.

Through the work of the waste diversion plan, the Administration will propose steps the City can take to move towards a zero waste framework where discarded materials from one process become resources to another. As part of this work, the Administration has begun a review of our current recycling programs' acceptable items to determine where strategic opportunities are that will align us with a zero waste framework.

Acceptable Item Review

As described in Attachment 1, by weight, 73.3% of material recycled in the curbside recycling program is paper and cardboard. Plastic (1-7) makes up 6.7%, glass makes up 3.9%, metal makes up 2.2%, beverage deposits make up 1.5%, 8% of material collected is contaminated, and 4.4% cannot be recycled (residual).

Efforts to ensure recyclable materials from Saskatoon's program can be successfully marketed for recycling within the new global marketplace have begun and further changes may be required.

Plastic Film

In April 2018, plastic film was removed as an acceptable item in the City's recycling programs. Stricter market standards with limited options for marketing low-value material were the drivers for this change. Attachment 3, Spring Communication Campaign – Plastic Film, provides a summary of the communication campaign developed to communicate this change. This fall, the Administration will be engaging with the Industrial, Commercial, and Institutional (ICI) sector on source reduction and local diversion options for single-use items such as plastic film. A planning framework for single-use items has also been developed and can be found in Attachment 4, Waste Diversion Planning and the Road to Zero Waste.

Glass

By weight, glass makes up about 4% of the recycling stream. Approximately 90% of this material (or 3.6% of the total materials collected) is broken by the time it is sorted and also becomes contaminated by other residual materials that makes its way through the sorting equipment. Around 10% of collected glass (or 0.6% of all collected material) is unbroken and delivered to Sarcen for recycling.

Research suggests that curbside collection programs may not be the most effective way to recycle glass. A depot program would lead to a lower capture rate but lead to a higher percentage of glass actually being recycled. While the Administration continues to look at the best option for glass in Saskatoon, a pilot program in partnership with Sarcen is proposed. This pilot would enable residents to take their glass items to

Sarcen depots as a means to increase glass recycling. The clear glass would be made into reflective glass beads for road paint to light up the streets of Saskatoon and provincial highways. The coloured glass would be used to manufacture fibreglass insulation for home construction. In the event there is a problem with a downstream processor, the glass would be temporarily used as an aggregate material in road construction.

Based on the results of the pilot, a decision to remove glass from the curbside recycling program may be made in alignment with a future recycling service contract. No changes to the curbside program are proposed now.

Public and/or Stakeholder Involvement

The Administration has been in discussions with Sarcen Recycling to explore depot options. Both recycling service providers have been consulted and are in favour of expanding household glass recycling options.

Communication Plan

If a glass recycling collection program through Sarcen is approved, a communications plan would be developed to encourage residents to divert glass to the new depots; the plan may include social and traditional media, website and Waste Wizard updates, short videos, media relations and other tactics and would likely be integrated with other communications and education on recycling.

Financial Implications

A glass recycling program through Sarcen is estimated at an annual cost of \$16,700 to \$33,400 depending on the amount of glass accepted (50 to 100 tonnes). Surplus revenues collected from the recycling utilities are available to fund the glass recycling program.

Environmental Implications

Materials collected through the 2017 curbside recycling program resulted in emissions reductions of 31,000 tonnes CO₂e (carbon dioxide equivalents), compared to landfilling these same materials. The addition of a glass recycling pilot program would help divert approximately 100 tonnes of household glass from the waste stream, resulting in additional emissions reductions of 12 tonnes CO₂e annually.

Due Date for Follow-up

The Administration will provide a report to the Standing Policy Committee on Environment, Utilities and Corporate Services in November 2018 recommending terms and considerations for procuring curbside residential recycling services for 2020 and beyond.

Public Notice

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

Attachments

1. Recycling Materials and Markets
2. Recycling Processing Costs
3. Spring Communication Campaign – Plastic Film
4. Waste Diversion Planning and the Road to Zero Waste

Report Approval

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