

## WASTE DIVERSION TARGET UPDATE

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### EXECUTIVE SUMMARY

In 2015, Council adopted the revised overall waste diversion target of 70 per cent across all waste sectors by 2025. As part of the overall waste diversion target, Waste & Recycling Services (WRS) developed individual diversion goals for the primary sectors: single family (SF), multi-family (MF), industrial, commercial and institutional (ICI) and construction and demolition (C&D).

For 2015, overall waste diversion was 32 per cent and is on track to meet the 70 per cent diversion target. Waste diversion will continue to increase in the city with the introduction of new programs such as mandatory recycling in the MF sector and future food and yard waste diversion programs in all sectors, including the City-wide implementation of the Green Cart program.

This report provides an update on waste diversion targets and demonstrates the progress within each sector.

### ADMINISTRATION RECOMMENDATION(S)

That the SPC on Utilities and Corporate Services receive this report for information.

### PREVIOUS COUNCIL DIRECTION / POLICY

On 2015 December 7, Council adopted the revised target of 70 per cent waste diversion across all waste sectors by 2025, as recommended in the Waste Diversion Target Update (UCS2015-0835). This update identified individual diversion goals for the four primary sectors. The overall waste diversion target was revised from the original target of 80 per cent diversion by the year 2020, as set in 2007 (UE2007-035).

### BACKGROUND

Achieving the 70 per cent waste diversion target by 2025 requires the continued progress of current waste diversion programs such as Blue Cart recycling, multi-family recycling and Provincial Stewardship programs. As well, private sector recycling must continue to evolve for the ICI, MF and C&D sectors. Higher tipping fees approved for The City's waste management facilities have created an environment that supports the establishment of private sector diversion businesses.

Future programs such as Green Cart and variable pricing, and the banning of paper, cardboard, food and yard waste from disposal are also critical steps in achieving The City's diversion target.

### INVESTIGATION: ALTERNATIVES AND ANALYSIS

Since the adoption of the 70 percent diversion target, mandatory recycling has been implemented in the MF sector. Bylaw amendments were also approved by Council that introduce mandatory recycling for the ICI sector, and paper and cardboard were added to the Designated Materials List (DML). Additional waste diversion initiatives such as bans and education campaigns are planned for the near future to further reduce the waste going to landfill from all four sectors.

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In 2015, a total of 636,800 tonnes of waste was sent to The City of Calgary's three landfills. This is approximately 110,000 tonnes less than in 2014. An update on each sector is included in Attachment 1. In summary:

- SF waste disposal increased by 4,000 tonnes which is consistent with the household growth Calgary has been experiencing.
- MF waste to landfill decreased by approximately 10,000 tonnes. This could be attributed to early adopters of the recycling program, increased vacancy rates and/or the economic downturn.
- ICI sector waste to landfill decreased by nearly 85,000 tonnes. This includes a decrease in 15,000 tonnes of street sweepings due to a mild winter, and significant reductions in the amount of material being brought to City landfills by major commercial waste haulers in Q4 2015.
- C&D sector waste to landfill decreased by almost 20,000 tonnes. Lower new home construction and the successful Designated Materials diversion program contribute to this reduction in waste disposed.

The City is responsible for the collection of all waste and divertibles from the SF sector, allowing WRS accessibility to data for overall waste diversion in this sector. However, waste diversion in the MF, ICI and C&D sector is mainly serviced by the private sector. The progress in these sectors is very positive and additional programs will continue to increase private sector diversion. Currently, this progress is estimated and the diversion rates presented are likely conservative. There is an opportunity to work with the private sector to collect data from waste haulers and processors to increase accuracy in reporting diversion progress in Calgary.

After a new diversion program is introduced, it requires a few years before it reaches full participation. Current diversion programs are expected to reach full maturity between 2020 and 2025, leading to an increase in diversion over those five years. As well, waste prevention, variable pricing programs for the SF sector and extended producer responsibility will be investigated for future business cycles. Attachment 2 provides the timeline for diversion program next steps.

WRS will continue to measure program effectiveness and adjust programs where necessary. When full program maturity has been reached, Calgary will consider appropriate alternate technologies such as Waste-to-Energy (WtE) to potentially manage the residual waste. A WtE Status Update is included in Attachment 3.

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

Stakeholder engagement is an integral part of all waste diversion programs and strategies. Input from stakeholders helps shape and influence program design and execution to achieve success. Engagement with the ICI, MF and C&D stakeholders is a priority for WRS. Through engagement, WRS designs and implements programs that provide efficient solutions for waste diversion and suit industry needs. Stakeholders directly influence program details such as timelines and the inclusion of certain materials.

### **Strategic Alignment**

Reporting on The City's diversion progress is important in determining the success of The City's and private industry diversion programs. The overall waste diversion target of 70 per cent diversion by 2025 contributes to WRS' mission: Leading the community toward zero waste. This report aligns with Council's Priority for a Healthy and Green City and WRS' Strategy to Council Outcome: H1 Implement the Green Cart program and multi-family recycling strategy, and reduce industrial, commercial and institutional waste going to our landfills.

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

#### *Social*

Shifting behaviours towards waste reduction and diversion improves the quality of life for Calgarians and their communities. Implementation of waste diversion programs will make Calgary a more attractive place to live and increase Calgary's reputation as an environmentally-friendly city.

#### *Environmental*

Reducing and diverting waste is a critical component of reducing Calgary's impact on land, air and water. Waste reduction and recycling reduces greenhouse gas emissions, redirects natural resources back into the economy and reduces future environmental liability.

#### *Economic*

Waste diversion supports an increase in jobs and stimulates economic growth. The City's diversion strategies and programs are supporting the growth of private businesses and fueling innovation in the industry. Private C&D recycling businesses in Calgary have grown significantly since the introduction of differential tipping fees. Waste haulers are expanding their operations to satisfy the demand for food and yard waste diversion. Infrastructure is being developed and jobs created because of the expansion of existing waste management companies, as well as the creation of new businesses.

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### Financial Capacity

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

Diversion program initiatives that will direct The City towards its ultimate goal of zero waste are incorporated in Action Plan 2015-2018.

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

The diversion programs and infrastructure mentioned within are aligned with the WRS Infrastructure and Investment Plan (WRIIP).

### Risk Assessment

There are no significant risks associated with this report.

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

Action Plan 2015 to 2018 includes strategies to maximize diversion from existing programs and introduce new programs to continue to divert materials from disposal. Next steps and strategies will be developed for implementation in the 2019 to 2022 business cycle.

#### Attachment:

1. Waste Diversion Sector Updates
2. Waste Diversion Next Steps
3. Waste-to-Energy Status Update