

CONSTRUCTION AND DEMOLITION STRATEGY UPDATE

EXECUTIVE SUMMARY

Significant progress has been made with Construction & Demolition (C&D) waste diversion in Calgary since the introduction of the initial C&D waste diversion strategy in 2007. After creating an economic incentive for diversion through higher tipping fees, the development of a Designated Materials List (DML) for readily recyclable materials and increased diversion opportunities for source separated materials at Calgary's three waste management facilities (WMFs), the amount of divertible material in the C&D waste stream has decreased from 72 per cent in 2010 to 39 per cent in 2015.

Early stakeholder engagement indicated that higher tipping fees would create an environment that would support the establishment of C&D recycling businesses. The number of these businesses has increased considerably since 2007 and the volume of material collected and processed by these companies in 2014 included approximately seven times more wood, drywall and shingles than collected at the WMFs for recycling.

With current and planned programs The City is on track to achieve the target of 40 per cent waste diversion for this sector by 2025. This report provides an update on the state of C&D diversion and recycling in Calgary and opportunities for further diversion.

ADMINISTRATION RECOMMENDATION(S)

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

RECOMMENDATION OF THE SPC ON UTILITIES AND CORPORATE SERVICES, DATED 2016 JUNE 22:

That the Administration Recommendation contained in Report UCS2016-0471 be approved.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2007 November 19, Council approved a series of actions as part of Calgary's Construction and Demolition Waste Strategy and Action Plan (UE2007-36) to support C&D diversion opportunities, including increased tipping fees to encourage private sector recycling opportunities and a pilot program to collect source separated C&D materials at the Spyhill Waste Management Facility (WMF).

On 2011 June 13, Council approved next steps on C&D waste diversion in UE2011-12 Waste Diversion in the Construction and Demolition Sector in Calgary.

On 2013 May 1, UCS2013-0035 Multi-family, ICI and C&D Engagement Update Report provided an update on the plan and subsequently, Waste & Recycling Services (WRS) added wood and drywall to the Designated Materials List (DML) and expanded the Spyhill collection pilot to full C&D collection programs at all three Calgary WMFs.

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On 2015 December 7, Council approved the Waste Diversion Target Update (UCS2015-0835) including a recommendation that directed Waste & Recycling Services (WRS) to revisit the Construction and Demolition sector strategy and return to Council in Q2 2016.

BACKGROUND

Since the 2013 update, C&D diversion has continued to increase. Additional diversion initiatives have been implemented and programs have expanded, including:

- The addition of recyclable wood and drywall to the DML in 2013;
- Implementation of source-separated C&D materials recycling at The City's Shepard (2013) and East Calgary (2014) WMFs; and
- The addition of paper and cardboard to the DML in 2016 February.

A "State of C&D Waste Diversion in Calgary" report identified that in 2014, C&D waste disposed in Calgary landfills totaled more than 250,000 tonnes, of which 120,000 tonnes were disposed at The City's WMFs. In 2015, this volume decreased by almost 20,000 tonnes. Lower new home construction and the DML contribute to this reduction in waste disposed.

A waste composition study shows a reduction in the quantity of divertible material in the C&D waste stream, from 72 per cent in 2010 to 39 per cent in 2015. This reduction in disposal of recyclable C&D material can be attributed to the economic incentives introduced by The City. These include the higher tipping fees associated with the designated materials program along with the lower tipping fees for source separated C&D loads received at the City's WMFs. These differential tipping fees have encouraged recycling and waste reduction initiatives within the C&D industry and significantly increased the number of C&D recyclers in the Calgary area.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The 39 per cent of readily divertible materials ending up in the landfill indicate that there are further opportunities for diversion, including concrete, brick and masonry, asphalt, metal and drywall and wood. The remaining 61 per cent of the C&D waste stream is composed of non-recyclable materials or materials not readily recycled in Calgary.

Based on a 2014 waste composition study and the State of Construction and Demolition Waste Diversion report, WRS will continue to encourage Construction and Demolition waste diversion in Calgary by:

- Improving measurement and enforcement by increasing waste load audits at City landfills to ensure compliance with the DML;
- Developing a communications, education and engagement campaign to promote further diversion including potential recycling, and reuse opportunities for demolition and deconstruction businesses;
- Advocating for the provincial government to assume a leadership role in C&D waste diversion and to implement a deposit-refund program; and,
- Continuing to research best practices to identify opportunities relevant to Calgary.

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A summary of progress in this sector and next steps to continue to advance C&D diversion in Calgary is included as Attachment 1 and presented in a Results Based Accountability report format in Attachment 2.

Stakeholder Engagement, Research and Communication

Through previous engagement with stakeholders and industry, WRS has been able to design and implement programs that provide efficient solutions for C&D waste diversion that suit industry needs. Stakeholders have had direct influence on program details such as timelines and the inclusion of certain materials in waste diversion programs.

Additionally, through the State of Construction and Demolition Waste Diversion in Calgary report, industry was engaged using an online survey and in person interviews that covered current practices and potential recycling and reuse opportunities for demolition and deconstruction businesses. Industry members that were consulted included; haulers, processors, and large generators such as architects and general contractors.

C&D stakeholders will continue to be engaged when developing future diversion programs for the industry.

Strategic Alignment

Increasing C&D waste diversion through collaboration with the private industry and economic incentives is essential in furthering diversion in Calgary. C&D diversion programs are part of The City's overall waste diversion target of 70 per cent diversion by 2025 and to WRS' vision of zero waste. This report aligns with Council's Priority for a Healthy and Green City and WRS' Strategy related to Council Outcome: H6.1 Collaborate and create partnerships to achieve reduction and diversion outcomes

Social, Environmental, Economic (External)

Social

Shifting behaviours towards waste reduction and diversion improves the quality of life for Calgarians and their communities. Reducing and diverting C&D material reduces the amount of greenhouse gas emissions and other pollutants, improving the health of citizens. Implementation of C&D 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 C&D waste is a critical component of reducing Calgary's impact on land, air and water. Waste reduction and diversion programs reduce greenhouse gas emissions, redirect natural resources back into the economy and reduce future contamination and environmental liability.

Economic

C&D waste diversion supports an increase in jobs and stimulates economic growth. The City's C&D diversion strategies and programs are supporting the creation and expansion of private businesses and fueling innovation in the industry.

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Financial Capacity

Current and Future Operating Budget:

Program initiatives to move towards the 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 continue to work with industry to improve C&D waste diversion. Next steps and progress will be reported annually as a part of the Waste Diversion Update report.

Attachment:

1. Construction and Demolition Waste Diversion Update
2. Construction and Demolition Waste Diversion Results Based Accountability Report