

## AGGREGATE RECYCLING PROGRAM

### RECOMMENDATION

That the November 25, 2022, City Operations report CO01474, be received for information.

<b>Requested Council Action</b>	Information only		
<b>ConnectEdmonton's Guiding Principle</b>	<b>ConnectEdmonton Strategic Goals</b>		
<b>CONNECTED</b> This unifies our work to achieve our strategic goals.	<b>Climate Resilience</b>		
<b>City Plan Values</b>	LIVE.		
<b>City Plan Big City Move(s)</b>	Greener as we grow	<b>Relationship to Council's Strategic Priorities</b>	Climate adaptation and energy transition
<b>Corporate Business Plan</b>	Managing the corporation		
<b>Council Policy, Program or Project Relationships</b>	N/A		
<b>Related Council Discussions</b>	August 29, 2022, City Council		

### Previous Council/Committee Action

At the August 29, 2022, City Council meeting, the following motion passed:

1. That Administration pause efforts to wind-down the Aggregate Recycling Program until City Council determines if the program is in alignment with City priorities and strategic goals.
2. That Administration provide a report to City Council which includes the following documentation and analysis:

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- a. An analysis of the proposed wind-down of the Aggregate Recycling Program and alignment with City strategic plans, Business Cases, Audits, Program Service Reviews related to the Aggregate Recycling Program;
- b. A cost and risk analysis of closing the Aggregate Recycling Program, including documentation comparing the program cost, material quality, waste diversion rates with that of private industry; and
- c. An overview of plans for disposal of materials from City projects and breakdown of costs.

### Executive Summary

- The City of Edmonton has owned and operated the Aggregate Recycling Program for over 40 years, accepting used concrete and asphalt from the City's demolition and rehabilitation projects, as well as from household renovations and private demolition projects.
- The program is part of the non-utility funded (non-regulated) lines of business in the Waste Services utility, with the City as the primary contributor of raw material and the primary customer of processed material.
- The City completed a Program and Service Review of the Aggregate Recycling Program in 2018 to determine its continued viability. Recommended improvements were suggested to increase effectiveness and efficiency.
- The 25-year Waste Strategy specified that the City should only have direct involvement in the residential sector and focus on influencing the Industrial, Commercial and Institutional sector through policy mechanisms as a regulator versus an active participant.
- In fall 2021, Administration initiated a review of pricing that was previously established in 2018, and long-term commitment requirements for the Aggregate Recycling Program. The review determined that the program could not remain viable or sustainable without a price increase.
- Administration confirmed that there is sufficient private industry competition in the market for receiving and recycling aggregate materials. Additionally, there is an adequate supply of recycled aggregate from private suppliers to support the demand for this material for City projects.
- Winding down the Aggregate Recycling Program is not anticipated to impact waste diversion rates. Administration requires mandatory recycling of roadway debris and the use of recycled aggregates in City projects. Most private companies accept concrete and asphalt free of charge, giving residents and contractors disposal options that support waste diversion efforts.

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### REPORT

**Part 1: That Administration pause efforts to wind down the Aggregate Recycling Program until City Council determines if the program is in alignment with City priorities and strategic goals.**

Following the August 29, 2022, City Council motion, Administration paused efforts to wind down the Aggregate Recycling Program. Recognizing this program is paused, facility and equipment investments are not currently being expended and the aggregate facilities are not accepting any new raw material. The program continues to produce recycled aggregate products from its current inventory and continues to sell these products to industry for City and private construction projects.

**Part 2a: That Administration provide an analysis of the proposed wind-down of the Aggregate Recycling Program and alignment with City strategic plans, Business Cases, Audits, Program Service Reviews related to the Aggregate Recycling Program.**

The City of Edmonton has owned and operated the Aggregate Recycling Program for over 40 years. Two aggregate facilities accept used concrete and asphalt from the City's demolition and rehabilitation projects, household renovations and private demolition projects. This service results in diversion of waste material from landfill. Drop off is free for both residential and commercial customers. The material is processed and sold to the City and private industry for construction projects, such as roadway construction and maintenance. The program is part of the non-utility funded lines of commercial business within the Waste Services utility.

Historically, the City was the primary customer of processed aggregate material; however, this has changed in recent years. In 2021, the City represented approximately 52 per cent of the total sales of processed material with 48 per cent being sold externally. Many factors have changed in the aggregate marketplace since the program's inception, including increased availability and market competition provided through private suppliers for recycled aggregates in the Edmonton region.

A 2018 Program and Service Review resulted in two recommendations, the first of which related to increasing revenue through appropriate pricing and increased sales to external and internal clients. The other related to reducing costs through outsourcing crushing, continuing to outsource pile management, closing the southeast location seasonally in the winter as well as installing inbound scale houses and supporting infrastructure.

The 25-year Waste Strategy, approved by Council in September 2019, specifies that the City should only have direct involvement in the residential sector and focus on influencing the Industrial, Commercial and Institutional sector through policy mechanisms as a regulator versus an active participant. The Waste Strategy also notes that the City should immediately begin to withdraw from directly offering non-regulated services. These aspects of the 25-year Waste Strategy were discussed and reviewed with the chair and members of Utility Committee as well as the Utility Advisor on a number of occasions throughout its development and submission.

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Aggregate Recycling was not directly referenced in the 25-year Waste Strategy's assessment of the non-regulated business lines. Although the ongoing operation of the Aggregate Recycling Program was not aligned to the direction provided for this type of non-utility regulated work, it was seen as a program that was providing value to City operations and was aligned to overall waste reduction and diversion goals.

In fall 2021, Administration identified the need to carry out an additional review of the financials of the program as a result of reduced income and increased costs, and a need for significant capital investment. A business case was developed where it was confirmed that a significant capital investment, a long-term commitment to the program, and a price increase would be required (Attachment 1). Upon review of this requirement and the availability of this commercial product and service within the private sector, Administration determined that the program wind down was an operational decision that was in the best interest of the City.

It was also decided that Administration would maintain the requirement to use recycled aggregate in its construction projects. This decision was seen to align with the Utility Advisor's perspective that was shared at the Utility Committee discussion on June 25, 2022 (City Operations report CO00581 Multi-Unit Strategy). The Utility Advisor stated that utilities should not operate in areas where the private sector can provide the service in a manner that continues to serve the public good.

### **Part 2b: A cost and risk analysis of closing the Aggregate Recycling Program, including documentation comparing the program cost, material quality, waste diversion rates with that of private industry.**

As noted in the business case, the Recycled Aggregate program does not generate income for the City. In order to break even and remain sustainable, the price charged to City contractors for recycled aggregate would need to increase by \$3.50 per tonne (\$19 to \$22.50). This price increase includes the commitment to a 10-year capital replacement requirement valued at \$2.8 million and a total capital improvement of \$6.5 million to remain operational for 20 years.

Administration consulted with industry, and based on recent project experience, confirmed that there is sufficient private industry competition in the market for receiving and recycling raw materials. Additionally, there is an adequate supply of recycled aggregate from private suppliers to support the demand for this material for City projects.

Having contractors supply recycled aggregate improves efficiency and strengthens market competition when compared to being mandated by contract to source materials from the City's Aggregate Recycling Program. With the external market now established for recycled aggregate, prices for external supply are expected to remain competitive and reasonable.

Nine private suppliers, with facilities located in Edmonton, supply recycled materials to the Edmonton construction industry for City projects. The use of suppliers is based on an open tender issued to the suppliers via the construction contractor. The contractor selects the supplier primarily based on price. The table below shows the average, highest and lowest costs incurred for the purchase of recycled aggregate on construction projects during 2020 and 2021. As determined in the business case, the City price for recycled aggregate would need to increase by

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\$3.50 per tonne. Using the numbers presented in the table below, it would result in an average price of City Supply, contractor Haul and Placement of \$49.20 per tonne.

Supply Type	Description	Average	Low	High
Contractor Supply and Place	The contractor supplies and places the material on site.	\$45.06/t	\$21.00/t	\$69.89/t
City Supply, Contractor Haul and Place	The contractor loads and picks up the material from a City recycling facility, hauls it and places the material on site. The cost of the material is internally charged to the project.	\$45.70/t	\$37.00/t	\$68.89/t

Recycled aggregate is one of many components in roadway construction and generally accounts for a small percentage of the total costs for a project. The recycled aggregate received from internal and external providers must meet City specifications and standards for material quality, as assessed by City inspectors. Mandating that Contractors use City-supplied aggregates can create a risk in terms of uncertain responsibility if improper aggregate materials are used on City construction projects. When contractors are required to independently source their materials, the responsibility for deficiencies in a project is more certain. This reduces the risk of disputes arising over the responsibility for costs incurred to correct deficiencies relating to aggregates.

An additional impact in using City-produced recycled aggregate is that contractors are required to mobilize equipment to the City's Aggregate Recycling facilities and operate within the available scheduling of the program. Starting in 2020, the City began to permit contractors to retain raw products from demolition on City projects. Contractors were also given the opportunity to process these products for future sourcing on new City project applications.

Winding down the Aggregate Recycling Program is not anticipated to impact waste diversion rates, as Administration will not change requirements for the mandatory recycling of roadway debris and the use of recycled aggregates in City projects. Several private companies accept concrete and asphalt free of charge, giving residents and contractors the same disposal options that support waste diversion efforts. Eco Stations will continue to accept small amounts of residential cement and asphalt rubble for a fee, as does one private supplier located at the Edmonton Waste Management Center. Additionally, options will be provided for residents on the City's website. City contracts will continue to require contractors to use recycled aggregates on all City projects enabling a circular economy for recycled aggregate to be maintained within the Edmonton region.

### **Part 2c: An overview of plans for disposal of materials from City projects and breakdown of costs.**

There is no cost for the disposal of materials from City projects. The disposal of materials is not currently specified in the City's construction contracts, however, contractors are incentivised to dispose of waste materials at aggregate recycling facilities for no charge. The alternative option for contractors would require disposal at a waste facility which results in a cost per tonne. The

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incentive to dispose of materials at no cost is significant enough to ensure the material will be recycled. Contractors can also receive further incentive from the recycler if raw material is brought to the location where the recycled material is purchased.

## **ATTACHMENT**

1. Recycled Aggregate Program Business Case