

The Corporation of the City of Kawartha Lakes

Council Report

Report Number WM2019-008

Date: June 18, 2019
Time: 2:00 p.m.
Place: Council Chambers

Ward Community Identifier: All

Title: Construction and Demolition Recycling Pilot Program

Description: Update on the Construction and Demolition Recycling Pilot Program with recommendations to extend the Pilot.

Author and Title: David Kerr, Manager Environmental Services

Recommendation(s):

That Report WM2019-008, **Construction and Demolition Recycling Pilot Results and Recommendations**, be received;

That Council approve an extension of the pilot to December 31, 2020 with an operating budget of \$155,000 in 2020; and

That Staff report back to Council on the success of the construction and demolition waste recycling pilot program by June 30, 2020 with future program recommendations and associated budget.

Department Head:_____

Financial/Legal/HR/Other:_____

Chief Administrative Officer:_____

Background:

At the Council Meeting of September 12, 2017 Council adopted the following resolution:

CR2017-756

RESOLVED THAT Report **WM 2017-007**, Construction and Demolition Waste Recycling Program, be received;

THAT the implementation of a construction and demolition waste recycling program as a 22 month pilot to start March 1, 2018 and end on December 31, 2019 as outlined in this report WM 2017-007 at a cost of \$133,500.00 for 2018 and \$155,000.00 for 2019, be approved; and

THAT staff report back to Council on the success of the construction and demolition waste recycling pilot program by June 30, 2019 with future program recommendations and 2020 budget expectations.

CARRIED

This report addresses that direction.

This pilot initiative follows the direction outlined in the Integrated Waste Management Strategy (“the strategy”), as approved by Council. Specifically, the strategy recommended a Construction and Demolition (C&D) waste recycling program as one of the short term initiatives to be launched in 2018.

Prior to implementing this initiative, the City retained Reclay Steward Edge (Reclay) in 2017 to assess the feasibility of a C&D waste recycling program at one or more of our five operating landfill sites and make recommendations on how best to make it a successful program.

As part of the background research Reclay noted that in most municipalities including the City of Kawartha Lakes (CKL), the quantity of C&D waste generated far exceeded the amount of municipal solid waste generated. Approximately 40% (or 16,000 tonnes) of waste going to landfill in CKL is C&D. Therefore diversion of this waste stream from landfill could significantly extend the site life of our landfills. As well, C&D materials are bulky and challenging to compact in a landfill taking up needless volume that could be otherwise purposed for residential or other waste. Furthermore many materials generated through C&D activities have value and can be recycled for other products or even used as a fuel source.

For all of these reasons, C&D waste is a potential valued resource if managed properly and an important material type to divert from City landfills to extend landfill site life.

As per the Reclay C&D Feasibility Study from 2017, the primary recommendation was for the City to implement a pilot C&D recycling program at both the Fenelon and Lindsay Ops landfill sites. It should be noted that through Reclay's research there is insufficient volumes of C&D waste received at the other landfills (i.e. Somerville, Eldon and Laxton landfills) to justify a business case for C&D recycling at those sites. However there may be future opportunity to divert C&D waste from these more remote landfills to another site where they can be consolidated for processing or other reuse.

The driving factor for moving this recycling program forward was the savings related to reducing use of landfill space, which valued at the industry standard of \$150/tonne (Reclay). The projected space saved would result in an increase in landfill life 0.04 years for Fenelon and 0.17 years for Lindsay Ops for each year a C&D waste recycling program operates which is able to remove 10% of the C&D waste fraction.

In order to accurately assess the savings of a C&D program and determine how best to implement one, Staff in consultation with Reclay and the Waste Management Task force had developed and recommended a pilot C&D program. The program and associated budget was approved by Council to run from March 1, 2018 to December 31, 2019.

A competitive request for proposal (RFP) process was undertaken in January of 2018 to secure a third-party contractor to transport and process the C&D material from Lindsay ops and Fenelon landfills. The RFP requested quotes and a plan for containing, transporting, and processing wood, drywall, or a mixed bin of C&D materials which would include wood waste, drywall, aggregates, glass and shingles. Unfortunately the City received no bids for this work. The City received no submissions for the RFP. The likely reason was that in the current market, quantities and commodity pricing for the C&D materials was not high enough to justify transportation costs for end use processing.

Staff reached out and contacted other municipalities to do more research on how they were handling construction and demolition material to see if there were other alternatives to reduce C&D waste going to landfill. It was found that some other municipalities were separating wood waste and then having a contractor come in and chip the material. The material was then placed in the landfill or mixed in with daily cover material. This option would re-purpose wood waste into alternative daily cover, thereby reducing volumes of material in the landfill.

In June of 2018 the City began promoting the option of separating wood waste at the Lindsay Ops Landfill to be chipped. The pilot program for separating and chipping wood waste at the Lindsay Ops Landfill has continued since June 2018. Residents and contractors are required to pay the standard tipping fee of \$110.00 per tonne to dispose of the wood. There has been a high participation rate from the public and contractors who have been willing to separate the wood to be chipped and place it in a bin or a pile even though there is no financial

incentive to do so. Through this method the wood was not being diverted from the landfill and chipping the wood was only slightly reducing the volume therefore not providing a significant savings of landfill space.

However, due to the successful separation of clean wood waste the City is planning to continue separating wood waste and has revisited further options for shipping this material for off-site processing rather than chipping it and placing it in the landfill. The City sent out a request for quote in April 2019. A bid was received that will work within the allocated budget to implement as part of the 2019 pilot program for a six month period at the Lindsay Ops Landfill for \$150 per tonne including processing and transportation.

Additionally, this year the drywall recycling pilot is set to run from June to September of 2019. A firm has shown interest in just drywall and is willing to take it offsite for processing for \$50 per tonne. The City also pays for transportation of this material at \$650 per bin. There will be bins available at the Lindsay Ops and Fenelon landfills for residents and contractors to separate drywall for recycling (at regular tipping fees of \$110.00 per tonne). Through this process we will gain valuable information on the quantity of drywall we are able to divert from landfill and expected overall annual costs for this program.

Rationale:

As the investigations for successful C&D projects planned for 2019 are ongoing but show potential for landfill space savings staff is recommending extending the C&D pilot program to December 31, 2020. This will provide adequate time for staff to collect the remaining information required to determine the benefit of the programs currently being piloted. The quantity of C&D waste generated continues to far exceed the amount of municipal solid waste generated. As well, C&D materials are bulky and are challenging to compact in a landfill. For these reasons it is important to continue exploring options for C&D diversion from the landfill in order extend the life of the City's landfills.

Staff have consulted with the Waste Management Advisory Committee, the Lindsay Ops Landfill Public Review Committee, and the Fenelon Landfill Public Review Committee regarding the extension of the pilot program and all committees have been supportive of this recommendation.

At the Waste Management Advisory Committee meeting on May 8, 2019 the following resolution was made:

Moved By Councillor Yeo

Seconded By Councillor Veale

RESOLVED THAT the Committee support staff recommendations to continue the Construction and Demolition pilot program throughout 2020.

Carried

At the Lindsay Ops Landfill Public Review Committee meeting on May 15, 2019 the following resolution was made:

Moved By C. Appleton
Seconded By L. Scrivens

Resolved that the Lindsay Ops Landfill Public Review Committee supports staff recommendations to continue the construction and demolition recycling pilot for an additional year until the end of 2020.

Carried

At the Fenelon Landfill Public Review Committee meeting on May 23, 2019 the following resolution was made:

Resolved that the Fenelon Landfill Public Review Committee supports continuing the pilot on construction and demolition recycling for another year.

Moved By Robert Coleman
Seconded By Mike Wilson

Carried

Other Alternatives Considered:

Council could choose to cancel the pilot at the current end date of December 31, 2019. However staff recommends that the City continue to lead by example in diverting waste from landfill and explore further C&D diversion options over the course of 2019.

Financial/Operation Impacts:

Staff are requesting operating budget approval of \$155,000 for 2020 to implement and improve the C&D recycling pilot in 2020. This is the same cost as approved in the 2019 budget. The cost of the program has the potential to be offset by deferral of capital due to landfill space savings. There is a savings of \$150.00 per tonne in landfill space of material diverted.

The Reclay study suggests that approximately 371 tonnes of clean wood at Lindsay Ops as well as 239 tonnes of drywall at Lindsay Ops and 62 tonnes at Fenelon can be diverted per year. The clean wood will cost \$150 per tonne which includes transportation and recycling. The drywall will cost \$50 per tonne to

recycle plus there is a transportation cost of \$650 per bin with an estimated 36 trips per year.

Overall the clean wood recycling will be revenue neutral and there will be an approximate savings in landfill space of \$6,700 per year for the drywall recycling per the table below.

Material	Cost Per Tonne to Recycle	Estimated Total Cost Per Year	Estimated Savings Per Year	Net Savings
Wood	\$150	\$55,650	\$55,650	\$0.00
Drywall	\$50 plus transportation costs (\$650 per bin)	\$38,450	\$45,150	\$6,700

Relationship of Recommendation(s) To The 2016-2019 Strategic Plan:

This report contributes to the Council Adopted Strategic Plan, namely Strategic Action 3.1.2 which is “Executing the Waste Management Strategy”. This report aligns with the City’s Integrated Waste Management Strategy to divert materials from landfill and find further recycling opportunities to save landfill space.

Also, the proposed C&D recycling program aligns with Goal #3 of a “Healthy Environment”. The act of construction and demolition waste diversion aligns with the City’s vision of a naturally beautiful community that protects our local environment, enhances water quality and creates an improved quality of life.

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