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WST-2018-02

## STAFF REPORT TO COUNCIL

May 28, 2018

From: Linda Andrushkoff  
RARE General Manager

RE: Changes to Waste and Recycling Collection

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### Recommended Motion:

That the Council of the Township of North Glengarry directs staff to incorporate a dual stream collection system for the Township of North Glengarry and clients of the RARE facility;

AND FURTHER, that the changes shall take effect as of January 7<sup>th</sup>, 2019.

### Background / Analysis:

#### Purpose of this report

China had been working toward eliminating imports of low grade post-consumer plastic and paper recycling material for several years. In 2017, China unexpectedly closed its ports to all such material. Most of China's neighbouring nations followed China's lead in first accepting the same material and now rejecting post-consumer recycling.

R.A.R.E. has consistently sold its low-grade material overseas to China and occasionally to Korea, Vietnam, India, etc. That low-grade material is generally limited to Old Newspaper (ONP) and juice containers as well as lower grade plastics such as grocery bags and unsorted, mixed plastics.

R.A.R.E.'s higher grade material has always been sold domestically, in Canada and the U.S. That material includes Old Corrugated Cardboard (OCC), metals (aluminum & tin), and high grade sorted plastic (#1, #2, Tubs & Lids, Mixed Rigid Plastics (MRP)). R.A.R.E. has never had a lack of customers for these materials.

R.A.R.E. staff has developed this plan to address the consequences to production and sales resulting from the changes made to import rules in the Far East.

#### Plan outline

##### 1. Changes to production and sales strategies

We have located new domestic customers for our Old Newspaper (ONP). Challenges meeting new quality restrictions required R.A.R.E. to change its production stream to a positive sort of newspaper in order to ensure that the material is as clean as possible. Also, domestic mills have strict limits on how

many metric tonnes they accept and when. These are restrictions we never experienced with the Far East.

A positive sort of material is a strategic production change that is causing us to fall behind on the amount of material we can sort, resulting in R.A.R.E. having to bale backlogged material and to remove those unsorted bales from the property.

We can no longer sort out lower grade material for baling and shipping resulting in more rejected waste.

## 2. Changes to collection strategy

R.A.R.E. recommends changing our recycling collection process to dual stream; that is, fibres one week and containers the next.

The Township will incur no additional cost to our collection contract as the contractor will not be required to complete additional stops or provide more – or less – service to residents. [Note: our collection contract with GRS expires on July 31, 2020.]

R.A.R.E. recommends implementing this new process on Monday, January 7, 2019. This will prevent confusion over the Christmas/New Year holiday.

Our customer municipalities have already issued their collection calendars for 2018, and need time to inform and educate their residents, as do we.

This plan will require R.A.R.E. to coordinate with the Township's customer municipalities to collect the dual streams by coordinating each other's schedules.

### Dual Stream Collection & Processing Strategy

#### Cons:

Cost of creating a new promotion and education strategy to inform residents about what they can put in their blue box/other box, and providing a schedule or calendar they can follow.

Cost of giving each household an additional box (approx. \$30,000 + delivery to each household).

Contractual concerns with our recycling partner municipalities. Two municipalities' contracts expire within a year (Nov 2018, May 2019, respectively). The remaining contract is a long-standing one with a collection contractor and it does not have a stated expiration date.

#### Pros:

Educating residents about what they can put in their blue box/other box is expected to cut down on the amount of trash or non-recyclable material in the recycling bin.

Residents will be performing the basic first sort of the material, which we expect to save R.A.R.E. approximately 2 days per week. Staff expects the dual stream system to severely reduce or even eliminate backlogs at the facility as the staff will be able to process all incoming material.

Stewardship Ontario reports that, on average throughout Ontario, residue from recycling goes down from 13% to 5%, when comparing a single stream collection system to dual stream. This will reduce the amount of material going to landfill from R.A.R.E.

If/when R.A.R.E. is replaced by Extended Producer Responsibility, the Township of North Glengarry will have to move to a dual stream system. Staff has researched every Ontario recycling facility in a two hour radius that has capacity, and is planning to bid on Eastern Ontario contracts, and has discovered that they accept dual stream material only.



## Implementing a Dual Stream Processing Plan

R.A.R.E. will remove a piece of equipment called a Ballistic Separator and replace it with a slider belt (conveyor belt). Please see Appendix, Fig. 1, and Fig. 2

The ballistic separator must be removed because it sorts fibre material from containers. When running container material through the ballistic separator, that material falls away from the sorting line and must then be manually returned to complete its sorting production.

R.A.R.E. will use the inside of the plant to tip fibre on the old tipping floor. Appendix, Fig 3.

Tipping fibre inside the plant will keep paper based material drier than the current procedure of storing it outside. Staff expects inside storage to improve the quality of the newspaper bales thereby getting the best possible pricing Staff also expects storing paper inside will reduce the amount of material rolling around the yard during windy days.

R.A.R.E. will continue to store tipped containers (plastics & metals) in the outdoor staging area at the back of the facility. This material is unaffected by rain or snow.

Most recycling equipment relies on the heavy weight of the material to help maintain forward momentum through the recycling equipment.

The HT Storage Unit is the first piece of equipment in the sorting process. Equipment Operators load the tipped material into this unit which then feeds the first conveyor belt and the material continues on from there.

Staff expressed concern at the viability of the HT Storage Unit to handle the lighter weight of containers without mixing them with heavier fibres.

Staff tested their theory by filling the equipment with several bales of plastic and found that the HT Storage Unit will maintain an even throughput of recycling material if the unit is kept full. Some manual labour will be required to fully empty the unit when switching to fibre material. This is not a grave concern as this switch is expected to occur only once a week.

As mentioned above, R.A.R.E. will remove the Ballistic Separator if council orders the change to dual stream collection. If council recommends that R.A.R.E. continue to process under a single stream collection process, we will need to replace the ballistic separator. Staff can keep it going until next year, but it will need major repairs or full replacement in early 2019. (Anticipated cost depends on the decision to repair or replace – min \$75k – max \$150k). As this unit is in need of significant repair, staff does not recommend that it be sold as used equipment.

Under dual stream processing, only one new slider belt (conveyor) will be needed. No changes to the interior or exterior footprints will be required. Staff is currently seeking quotations for the new slider belt, and anticipates costs to be in the neighbourhood of \$30k.

R.A.R.E. will not raise staffing levels to accommodate a dual stream processing plan.

Only municipalities who collect their recyclables in a dual stream method will be permitted to tip at R.A.R.E. as of January 7, 2019.

Staff will be requesting change to the ECA from the MOECC.

### Alternatives:

- Status Quo
  - o Staff do not recommend the status quo for the Township. The existing way of doing business is not viable long term. The Township will continue to experience decreased efficiency and increases in costs.

**Financial Implications:**

Status Quo – Requires replacement/repair of the ballistic separator (\$75K-\$150K depending on rehab method selected).

Dual Stream:

Slider Belt - \$30K

Additional Blue/black boxes - \$35K

Engineering/ECA amendment - \$10K

**Others consulted:**

- Sarah Huskinson, CAO/Clerk
- RARE Clients

**Attachments:**

- Photos/Concepts



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Reviewed by Sarah Huskinson CAO