
MEMORANDUM

WMPSC-C 29-2019

Subject: Q2 Recycling Centre End Market Updates

Date: Monday, August 26, 2019

To: Waste Management Planning Steering Committee

From: Jennifer Wilson, Supervisor, Collection and Diversion Operations

The purpose of this memorandum is to provide members of the Waste Management Planning Steering Committee with an update on market trends and commodity pricing for Blue and Grey Box material processed at Niagara Region's Recycling Centre from January to June 2019, and to respond to the Councillor Information Request for a comparison of Niagara's revenue and performance to alternative recycling models such as single stream.

Key Facts

- Market pricing for fibre streams continues to be at historically low values, and in some cases in June 2019 was sold at a net loss to the Region.
- Niagara Region continues to experience challenges in marketing curbside collected plastic film (e.g. grocery bags) due to changes in contamination specifications for the domestic end market, lack of demand due to material surpluses and lower cost of virgin material.
- Immediate adjustments were made to the sorting procedures in order to improve the quality of film material being sold, resulting in an increase in the amount of contaminated material entering the landfill.
- As of the end of Q2 2019, it is estimated, based on current market conditions, that there will be a 2019 budget shortfall in revenue for the Recycling Centre of approximately \$3.7 million (\$3.3 million for fibre streams and \$.4 million for container streams).
- Niagara Region purchases recyclable materials under contracts with Waterloo, Haldimand and commercial businesses, and it is estimated that there will be a 2019 budget surplus of approximately \$1.6 million for these purchases as a result of the lower market values, which will partially offset the revenue shortfall.
- It is estimated that single stream MRFs can generate up to 20% less revenue than dual stream MRFs depending on the type of commodity. In comparison to a limited sample of Ontario-based MRF's, Niagara has generated an average of 24% higher revenue for fibre stream materials and 50% for container stream materials than reporting single stream MRFs.

Market Conditions

As previously indicated in WMPSC-C 23-2019, fibre market pricing continues to be at historically low values, and in some cases is being sold at a net loss to the Region. While hardpack was previously only sold to domestic markets, material is continuing to be diverted to export markets due to market surpluses, lack of demand for post-consumer product and domestic mill downtime.

Niagara Region is continuing to experience challenges in marketing curbside collected plastic film (e.g. grocery bags) due to challenges with contamination, market surpluses, lack of demand from the domestic end market and lower cost of virgin material. As a result of the Region's efforts to reduce contamination and improve the quality of marketed film, it is estimated that approximately 20 to 25% (~25 to 30 metric tonnes (MT) per month) more film is entering the residue stream due to high levels of contamination within the bagged film, with estimated disposal costs of \$16,000 for the balance of 2019.

Despite efforts taken to improve the quality of curbside collected film, Niagara Region continues to experience challenges marketing material to the domestic market. The low cost of virgin material is impacting the demand for the post-consumer product, creating surpluses in the market. Currently, Niagara Region is stockpiling baled film while alternatives for moving the material are being considered, including stockpiling at a storage facility, or disposal if market conditions do not improve.

Impact on Niagara Region

Fibre Revenue

Fibre revenue continued to see significant decreases through June 2019. Low market pricing is a widespread issue that is continuing to impact Material Recovery Facilities (MRFs) across the globe due to material surpluses and tightening quality specifications. It is anticipated that market conditions may further decline throughout 2019. Despite current market conditions, Niagara Region continues to market all fibre commodities. Table 1 illustrates the market trends in fibre revenue for Q2 2019. The fibre stream is comprised of the following marketed commodities: newsprint, cardboard (OCC) and boxboard (OBB).

Table 1 - Comparison of budgeted versus actual revenue for fibre stream at Niagara Region's Recycling Centre from January to June (Q2) 2019 (Niagara Region).

Commodity Type	Region Average Monthly Pricing (Q2 2019 \$/MT)	2019 Budget (Average \$/MT)	Region Q2 2019 % Budget Variance (Budget vs Actual)
Cardboard (OCC)	\$107	\$148	-28%
Hardpack (OBB/OCC)	\$59	\$94	-37%
Newsprint	\$58	\$77	-25%

As indicated in Appendix A, since the adaptation of the Chinese National Sword Policy in March 2018, fibre market prices for the Niagara Region have declined approximately 69% as a result of the tightening of specifications and global market surpluses. On a monthly basis, the Continuous Improvement Fund (CIF) releases an estimate of the average commodity prices from a subset of municipalities located across Ontario. Based on the average market pricing from January 2018 to June 2019, the Region for the most part has been receiving above average pricing for all marketed Fibre material.

Based on current market conditions, if there are no changes to market conditions, it is estimated that there will be a 2019 gross budget shortfall for fibre revenue of approximately \$3.29 million.

Container Revenue

Container stream revenue has seen significant decreases from January to June 2019. Table 2 illustrates the market trends in container revenue for Q2 2019. The container stream is comprised of the following marketed commodities: steel, aluminum, Polyethylene Terephthalate (PET) bottles plastics, High-Density Polyethylene (HDPE) plastic, polycoat, plastic film, and hi-grade mixed plastics.

Commodity Type	Region Average Monthly Pricing (Q2 2019 \$/MT)	2019 Budget (Average \$/MT)	Region Q2 2019 % Budget Variance (Budget vs Actual)
Containers	\$300	\$333	-10%

Based on current market conditions, if there are no changes to market conditions, it is estimated that there will be a 2019 gross budget shortfall for container revenue of approximately \$.4 million.

Purchase of Recyclable Materials

Niagara Region has contracts with Waterloo, Haldimand and various commercial businesses to purchase recyclable materials for processing and sale. The majority of

the materials purchased are within the fibre stream, with the purchase prices dependent on market pricing, and as such, there is an estimated 2019 budget surplus of \$1.6 million for these purchases, which will offset some of the budget shortfall anticipated in the revenues.

Single vs. Dual Stream MRFs

Detailed market pricing is proprietary information, however, it is estimated that single stream MRFs can generate up to 20% less revenue than dual stream MRFs depending on the type of commodity. Based on best available composite data from January 2018 to May 2019, dual stream MRFs generated an average of approximately 2% higher revenue for fibre stream materials and 13% higher revenue for container stream materials than reporting single stream MRFs. In comparison, Niagara has generated an average of 24% higher revenue for fibre stream materials and 50% for container stream materials than reporting single stream MRFs. This information is based on a limited sample of Ontario-based MRFs (Continuous Improvement Fund (CIF)).

Next Steps

Niagara Region is looking to undertake various capital improvements at the Recycling Centre in order to improve the quality of outgoing recyclables and, in consequence, generate a higher revenue. With the recommendation approved in Council report PW 48-2019, a drum feeder will be installed to improve the metering of fibre material at the Recycling Centre. Following installation, Niagara Region will evaluate whether further capital investments, such as the installation of a wind tunnel system or additional optical sorters on the fibre line, can increase the quality of outgoing recyclables.

In order to generate additional revenue for the container stream, modifications are being made to the existing HDPE bunker in order to allow for the separation of natural HDPE from coloured HDPE. Natural HDPE has a greater market value than coloured and has the potential to generate approximately \$3,660 per month in additional revenue based on current tonnage.

Staff will provide a further update on the re-forecasted 2019 budget shortfall to members of the WMPSC in Q4 2019 on the financial outcomes of Q3 2019.

Respectfully submitted and signed by,

Jennifer Wilson
Supervisor
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Appendices

Appendix A – Average market pricing for Fibre commodities from
January 2018 to June 2019 (Region vs. CIF)

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