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2010 WASTE DIVERSION PROJECTION UPDATE

The Environmental Services Committee recommends the adoption of the recommendation contained in the following report dated September 3, 2010, from the Commissioner of Environmental Services.

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

This report provides an update on the waste diversion projections for 2010 given the shortfalls York Region has experienced in source separated organics processing.

3. BACKGROUND

York Region's Waste Diversion Ontario diversion rate for 2008 ranks number one in Large Urban category

In 2008, York Region ranked first in diversion performance in Waste Diversion Ontario's (WDO) category of Large Urban Municipalities for the second year in a row, and second overall in Ontario with its diversion rate of 53%. In addition, York Region waste diversion initiatives received three Gold level Waste Minimization awards in 2008 from the Recycling Council of Ontario (RCO). In 2009, York Region achieved an unverified WDO diversion rate of 56.9%; verified diversion rates are expected to be published by WDO this fall. As an established leader in diversion in Ontario, York Region continues to make significant investment in its waste management infrastructure to further increase the amount of waste diverted from landfill.

Full shutdowns at Universal and Orgaworld result in landfilling organics in near term

As previously reported to Council, over the past two years, the Ministry of the Environment (MOE) has placed orders that significantly limit facility throughput at both Orgaworld Canada Limited (Orgaworld), in London, and Universal Resource Recovery Inc. (Universal), in Welland due to odour complaints.

Consequently, these orders have significantly decreased processing capacity at Orgaworld and Universal creating a tenuous situation that is having a direct impact on

York Region's diversion results. To manage limited processing capacity at both of these third party suppliers on a short-term basis, the Region has sent a portion of organics to the Green Lane Landfill, owned by the City of Toronto. As of June 30, approximately 70% of organics collected in 2010 across York Region have been processed by Orgaworld and Universal.

In June 2010, Orgaworld and Universal indicated they were addressing processing issues at each of their facilities. Information provided by senior MOE staff on June 9, 2010 revealed ongoing and serious odour concerns with both Orgaworld and Universal. MOE staff indicated they may order both facilities to shut down as early as the end of June. Orgaworld and Universal both closed voluntarily to deal with their odour issues on July 9 and 19, 2010 respectively.

In response to the shut downs, Region staff issued letters to Universal and Orgaworld on July 21, 2010 advising that York Region reserves the right to enforce its remedies under the contract. To date, staff have not received written responses to the letters, but communications between Universal, Orgaworld, the MOE and Region staff continue.

New processor in United States successfully processing approximately 20% of York Region's source separated organics

In June 2010, the Region entered into a contract with WeCare Organics LLC (WeCare) on an emergency basis to process up to 15,000 tonnes of organic material annually. WeCare, located in Marlborough, Massachusetts, has committed to accepting 15,000 tonnes from York Region for the remainder of 2010 to assist with current contract shortfalls. Since commencing shipments to WeCare on July 13, 2010, Region staff have confirmed that the Region's feedstock is being successfully composted with no negative impacts on the facilities operations. At this time WeCare processes approximately 600 tonnes of York Region's source separated organics (SSO) per week. Continuation of shipments at this rate will meet WeCare's contract maximum of approximately 15,000 tonnes for the remainder of 2010.

Region owned processing capacity to commence operation in 2013

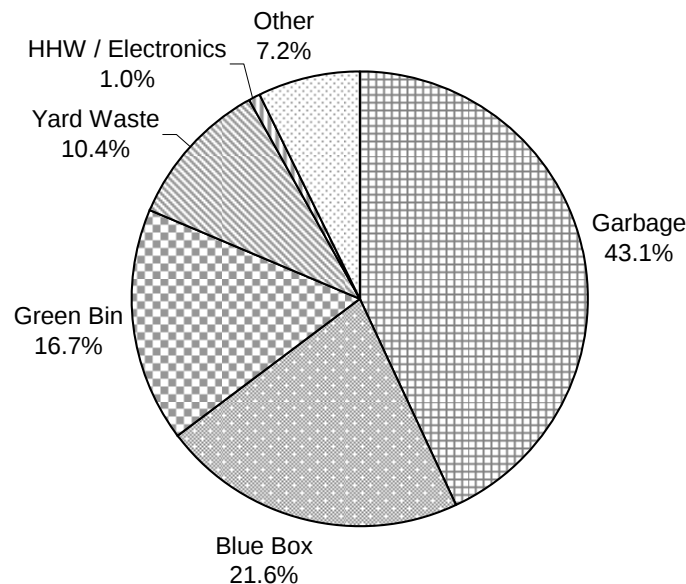
York Region, in conjunction with Dufferin County, continues to work towards developing an organic composting facility to reduce the risk caused by fully contracted processing capacity. The facility, with an initial design capacity of 50 000 tonnes per year, is due to be operational in 2013.

4. ANALYSIS AND OPTIONS

2010 Diversion dependent on success of source separated organics processors

Waste diversion is directly dependent on the success of the Region's organics processors achieving contract capacities. Figure 1 shows that the 17 % of the waste managed in 2009 was processed source separated organics which comprised 30 % of our 56.9 % unverified WDO diversion rate.

Figure 1: 2009 Unverified WDO Diversion at 56.9%



Note: "Other" includes tires, scrap metal, textiles, clean fill, backyard composting, and bottle deposits.

Once both organics processors resume operations, significantly less organics will need to be sent to landfill. Staff will continue to liaise with the MOE and closely monitor the progress made at Universal and Orgaworld.

York Region's feedstock limits ability to secure contingency processing capacity

In order to drive public acceptance and participation in the source separated organics program and to facilitate collection of as much of the organics stream as possible, York Region elected to allow the use of plastic bags in the program and permitted personal hygiene products (diapers, sanitary and incontinence products), kitty litter and pet waste to be included. While this has led to York Region achieving the highest yield of source separated organics per household in the GTA, a limited number of processors are able to manage this material. All neighbouring municipalities, with the exception of Toronto, do

not accept these items in their source separated organics programs and the resultant processing infrastructure is not equipped to manage these materials. Source separated organics processing capacity on the whole is at a premium in Ontario with very little excess capacity; however the nature of the Region's feedstock compounds this issue and has made it extremely difficult to secure any contingency processing capacity. Discussions with the MOE have highlighted a common belief among MOE staff that feedstock containing diapers and pet waste are a primary factor in the development of odour issues at aerobic composting facilities.

Reduced organics processing impairs York Region's 2010 diversion efforts

Impacts on the Region's 2009 and 2010 diversion for various processing capacity scenarios are summarized in Table 1. In 2009, York Region contractors processed 67,626 tonnes of source separated organics and due to closures at contracted facilities, 19,834 tonnes of source separated organics was not processed. Despite the 2009 processing challenges the Region was able to achieved an unverified WDO diversion rate of 56.9%.

2010 Scenario 1 demonstrates a 4.8% impact of a three month shutdown with 15,000 tonnes of contingency capacity at WeCare. Extended durations of processing shutdowns result an additional 1% impact on diversion for every two to three weeks (4000 tonnes). 2010 Scenario 2 shows an 8.3% impact of a 6 month shut down with the WeCare capacity.

For both scenarios, there is an adverse impact on York Region's in 2010 diversion which may compromise the Region's ability to remain ranked number one in the large urban category by WDO.

Table 1
2010 Forecasted Organics Processing Scenarios and Impact on Diversion

Program Scenarios		SSO Processed (tonnes)	Unprocessed Organics (tonnes)	Effect on Diversion	Forecasted WDO Diversion
2009 Actual		67,626	19,834	N/A	56.9% (unverified)
1	Orgaworld and Universal shut down for 3 months, resuming to 800 and 350 tonnes per week for remainder of year with 15,000 tonnes processed at WeCare	59,924	29,493	-4.8%	53.6%
2	Orgaworld and Universal shut down for 6 months and 15,000 tonnes source separated organics processed at WeCare	45,024	44,393	-8.3%	50.1%

Note Data presented as annualized tonnes based on actual data January to May 2010 and forecasted for June to December 2010. Organics processing rates are Orgaworld at 800/wk and Universal at 250/wk during Q1 and Q2 of 2010.

Diversion rates are calculated based on forecasted 2010 WDO data.

The City of Toronto is also being affected by processing shortages at Universal and Orgaworld and has been actively searching for alternate organics processing capacity.

Despite the challenges the Region is facing with Orgaworld and Universal, public participation in the program remains consistent. Year-to-date inbound quantities of Source Separated Organics are similar to 2008 tonnages.

Additional landfill capacity secured with Waste Management Canada to assist with processing shortfalls in 2010

The Region has entered into a contract with Waste Management Canada on an emergency basis to landfill up to a maximum of 34,200 tonnes of organic material in 2010 at a cost of \$79 per tonne inclusive of transportation. Waste Management Canada has committed to accepting 34,200 tonnes of organic material from York Region for the remainder of 2010 to assist with the current processing shortfalls. The contract unit price includes transportation haulage from the Region's transfer stations and landfilling of material at Waste Management Inc. Petrolia and Twin Creek landfills.

5. FINANCIAL IMPLICATIONS

Transfer and processing of source separated organics costs the Region approximately \$157 per tonne. Disposal costs are considerably less. Based on the two scenarios presented in Table 2, approximately \$1.5 to \$2.7 million in savings will be realized in the 2010 solid waste management operating budget because of the shut down at the Region's processing facilities.

Table 2 presents a summary of unit costs for each waste management approach used by York Region:

Table 2
Unit Cost for Waste Management Options

Waste Management Option	Unit cost (\$/tonne)*
Blue Box	Net \$77, Gross \$132
Source Separated Organics	\$157
Leaf and Yard Waste	\$65
HHW, WEEE and Other	\$465
Landfill	\$101
Dongara	\$122

*Note: 2010 budgeted fully burdened costs include transfer, hauling, and processing.

This processing shortfall has no expected impact on program funding from Waste Diversion Ontario. The WDO funding formula is based on the performance of the blue box recycling program and is not tied to source separated organics.

6. LOCAL MUNICIPAL IMPACT

Region staff proactively communicated with local municipal staff regarding the potential for facility closures on June 18, 2010. Follow up messaging was provided on July 8, 2010 to advise of the impending closures at Orgaworld and Universal and the contingency capacity with the WeCare facility.

The Region's success to date, including ranking number one over the past two years, is a direct result of collaboration with the local municipalities and a highly engaged public. These processing disruptions will impact diversion rates for 2010 and may result in future program changes potentially affecting the public's willingness to fully participate in diversion programs. Any program changes will be closely coordinated and communicated in partnership with the local municipalities and residents to mitigate consequent impacts.

7. CONCLUSION

Source separated organics processing is still a new and emerging industry; operational setbacks have created temporary disruptions to impairing the Region's ability to achieve greater diversion. Contingency capacity is not readily available to process York Region's source separated organics. Most composting facilities are not designed/permitted to handle organic feedstock containing diapers, pet waste, sanitary products and plastic bags. These recent events underscore the need for the Province to work with Municipalities to develop a robust and sustainable organics program to support increased diversion from landfill in Ontario. Work continues on the development of a York Region owned processing facility which will further diversify the Regions program and reduce the Region's risk associated with reliance on third party processors in the future.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection at (905) 830-4444 Ext. 5077.

The Senior Management Group has reviewed this report.