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WASTE DIVERSION ONTARIO'S 2007 RESULTS AND REPORTING OF DIVERSION

The Solid Waste Management Committee recommends the adoption of the recommendations contained in the following report dated February 26, 2009, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Council acknowledge the critical role of York Region's residents, Local Municipalities, Committees, Councils and staff in achieving leadership status as number one in the category of Large Urban Municipalities in the Waste Diversion Ontario's 2007 data call. Further, with the continued support of Council, all of these essential participants are encouraged to continue their efforts to build on this success and achieve even stronger results in the future consistent with the Region's long-term waste management objectives.
2. Council authorize staff to develop and implement a protocol for reporting of waste management performance data based on the standardized terminology and principles described herein taking into consideration the needs of the Region's Local Municipalities.

2. PURPOSE

The purpose of this report is to provide an update on York Region and its local municipalities' diversion rate for 2007, as reported by Waste Diversion Ontario and to achieve greater clarity regarding the use and interpretation of waste management performance data by establishing a standardized reporting protocol.

3. BACKGROUND

Waste Diversion Ontario is a non-share, non-crown Corporation created under the Provincial Waste Diversion Act in 2002. Waste Diversion Ontario was established to develop, implement and operate waste diversion programs for materials such as blue box recyclables, used tires, oil, electrical equipment and Municipal Hazardous or Special Waste (MHSW). Waste management information is collected annually from Ontario municipalities and a diversion rate is calculated for each municipality based on Generally Accepted Principles (GAP) taking into account collection, processing, residue and disposal quantities. This standardized approach allows municipalities to benchmark performance and compare diversion rates in a manner that ensures consistency year-over-year. The Waste Diversion Ontario diversion formula must be used by York Region as

part of this process. Datacall information is verified by Waste Diversion Ontario and is randomly audited by an independent auditor, KPMG on a yearly basis.

All Ontario municipalities are required to enter the Waste Diversion Ontario datacall to receive blue box funding. Municipal diversion tonnage and cost information collected through the datacall is used to calculate Ontario's blue box stewards' legislated funding contribution of 50% of the net cost of the municipal blue box system. In 2007, a total of 902,500 tonnes of blue box material was recycled in Ontario at a net cost of \$157 million dollars. This translates to the steward's annual provincial funding obligation of \$78.5 million.

In addition to the Ontario-wide usage of Waste Diversion Ontario's standard diversion rates for all municipalities, several other metrics are often reported by various communities and organizations to provide a gauge of various aspects of waste management performance. In the past, the similarity of the terminologies used and differences in the measured results reported have often created confusion. This report seeks to clarify some of these terms and to establish a standard protocol for reporting waste management data.

4. ANALYSIS AND OPTIONS

2007 Waste Diversion Ontario Datacall Results

Waste Diversion Ontario collects data annually and reports on the performance of all Ontario municipalities regarding achievement of waste diversion. Waste Diversion Ontario posted the results of its 2007 datacall on its website on January 15, 2009.

Waste Diversion Ontario Ranks York Region Number One in the Category of Large Urban Municipalities

York Region's Waste Diversion Ontario diversion rate for 2007 is 45.7%. This is the highest rate within Waste Diversion Ontario's category of Large Urban Municipalities, which includes York, Halton, Hamilton, London, Peel and Toronto.

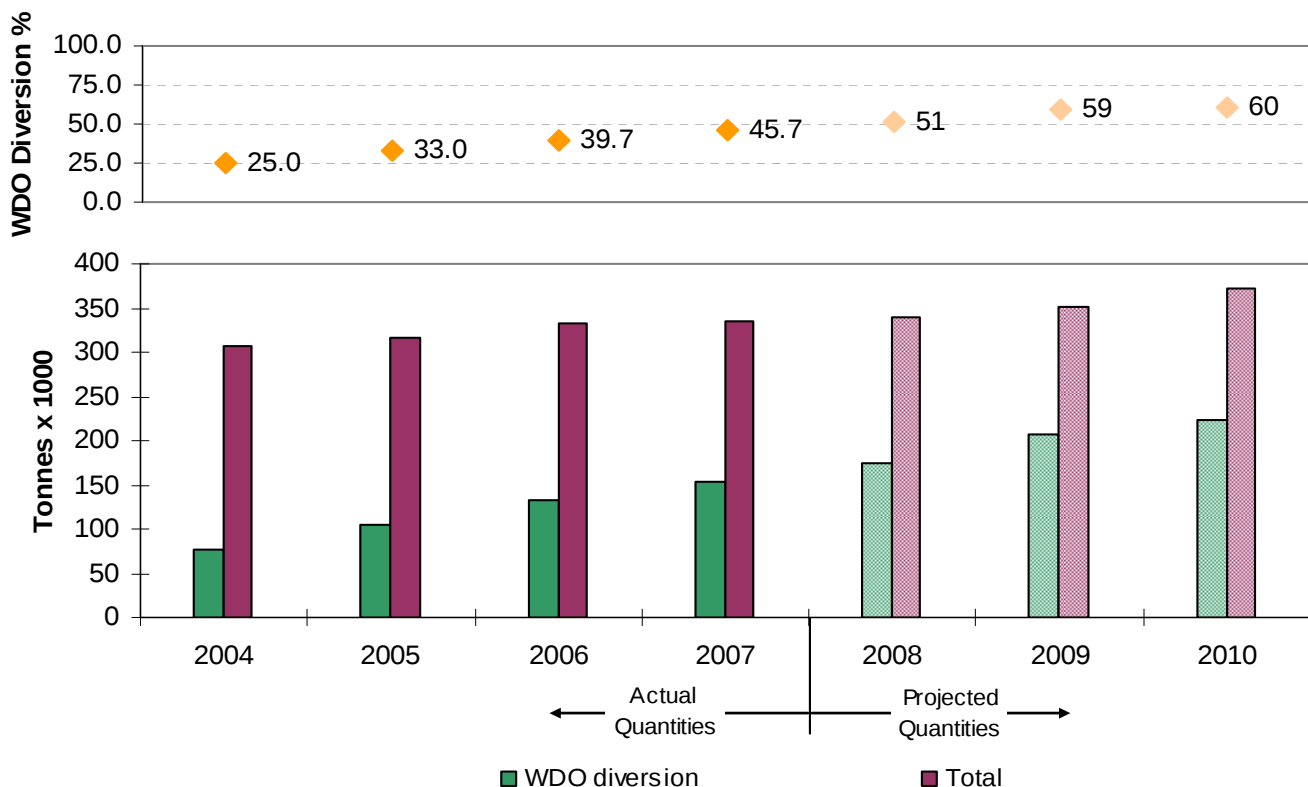
Table 1
2007 Waste Diversion Ontario Diversion Rates for Large Urban Municipalities

Municipality	Total Residential Tonnes Generated	Diversion Rate
York Region	333,726	45.7%
Hamilton	228,229	43.0%
Toronto	894,754	42.8%
Peel	489,304	40.6%
London	153,849	39.7%
Halton	187,172	36.9%

York Region's overall ranking was 17th out of a total of 206 municipalities in 2007, a significant improvement from the 2006 diversion rate of 39.7 % which ranked York 50th out of a total of 201 municipalities. York Region's 2007 unit costs for diversion were in the mid-range for Waste Diversion Ontario's Large Urban Municipalities category, a significant improvement over 2006 when York's unit costs were the highest in the category. York's achievement of leadership status in diversion, degree of long-term improvement and the comparative costs emphasize the overall effectiveness and efficiency of York's diversion programs.

Figure 1 illustrates the steady increase in York's Waste Diversion Ontario diversion rate from 25% in 2004 to 45.7% in 2007.

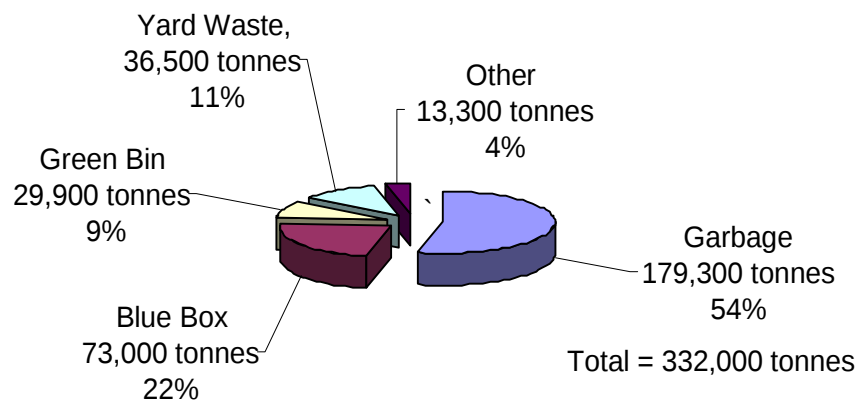
Figure 1
York Region's Waste Diversion



This progress is attributed to a combination of initiatives introduced by the Region and its Local Municipalities during this period. Some of these initiatives include acceptance of new materials in the blue box (e.g. aluminum foil, plastic tubs and lids, gable top containers), award winning promotion and education efforts, completion of Region-wide implementation of the source separated organics program, bi-weekly garbage pick-up, garbage bag limits and continuing blue box and source separated organics processing improvements.

Figure 3 shows a breakdown of materials managed by York Region in 2007. The Green Bin program was introduced in York's six northern municipalities (King, Aurora, Newmarket, East Gwillimbury, Georgina and Witchurch-Stouffville) in September 2007. 2008 diversion results will include the first full year source separated organics are recovered Region-wide.

Figure 3
2007 WDO Diversion



Building on Success to Improve the Future

With a full year of Region-wide source separated organics collection in 2008, York's Waste Diversion Ontario Diversion Rate is forecasted to be above 50%, subject to confirmation by Waste Diversion Ontario. In 2007, York Region's organics contract processors experienced business disruptions which prevented diversion of approximately 20,000 tonnes of source separated organic material. This represents a potential additional 5 to 6% diversion. In 2008, the Region moved to obtain more secure and reliable source

separated organics processing capacity. This will contribute to further increases in diversion rates in 2009 and beyond.

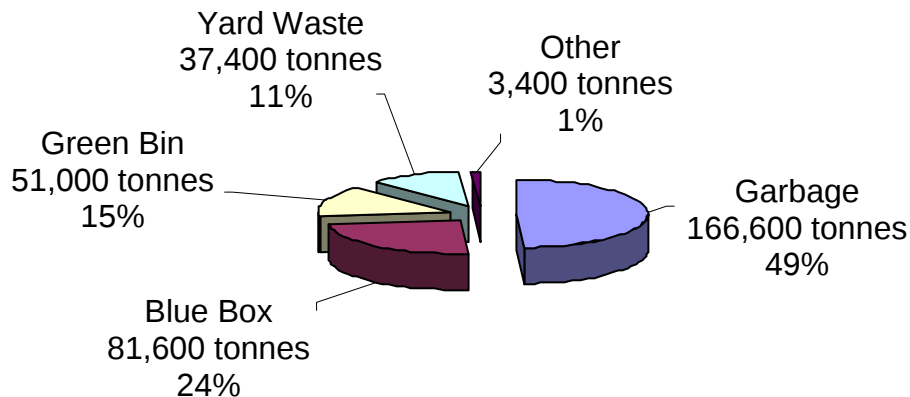
Initiatives are being undertaken to continue to improve diversion and reach the Waste Diversion Ontario goal of 60% by the year 2010. Construction of additional Community Environmental Centers will increase diversion of materials that can not be easily collected for reuse and recycling at the curb such as textiles, wood, batteries and shredded paper.

A blue box residue clean up system and glass clean up system were added to the material recycling facility in East Gwillimbury in 2008. Additional blue box material processing capacity and material recovery upgrades are currently being developed for implementation beginning in 2009, pending authorization for contribution of shared funding by Stewardship Ontario's Capital Improvement Fund.

In partnership with the Town of Newmarket and Township of King, a pilot project to research ways of improving three stream materials recovery in local parks was also implemented. The parks pilot program is being extended into 2009. A similar pilot project to assess blue box capture rates in indoor public spaces is also being implemented.

Staff are continuing to collaborate with the Region's source separated organics processing contractors and the Local Municipalities to optimize the Green Bin program by minimizing creation of process residues while maximizing public participation (e.g. adoption of certified compostable bag liners).

Figure 4
Projected 2008 Waste Diversion Ontario Diversion



Energy Recovery Represents a More Sustainable Approach Towards Achieving Success

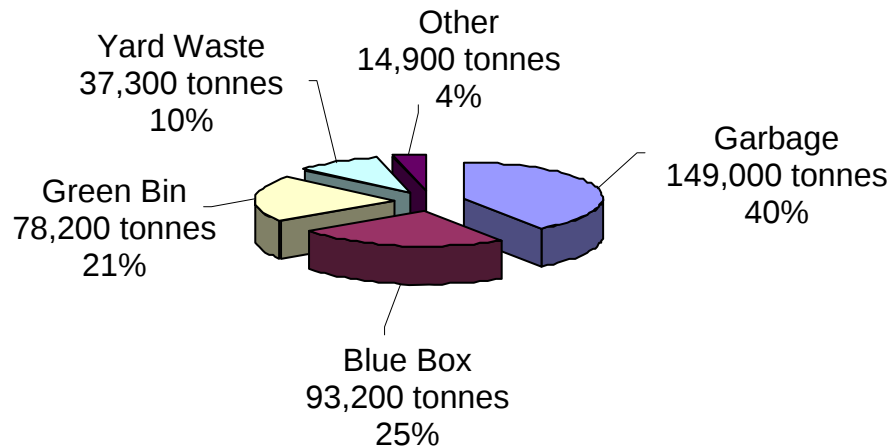
Above and beyond the Waste Diversion Ontario Diversion target of 60% by 2010 is the Region's commitment to achieve 65% diversion from landfill by 2010 as outlined in our Joint Waste Diversion Strategy. Although recovery of energy from waste (i.e. the 4th R) is not yet recognized in Ontario as part of Waste Diversion Ontario's Diversion Rate, energy recovery represents a commitment by York Region to reduce the amount of waste going to landfill as one component of implementing a more sustainable approach to waste management.

Critical to success in achieving this target are energy from waste initiatives such as the Dongara Pelletization Facility and the joint Durham York Energy from Waste Project. Energy from waste is more sustainable than landfill disposal as a result of reduced greenhouse gas emissions due to avoidance of landfill gas emissions and displacement of fossil fuels for energy generation. Recent preliminary feedback from Waste Diversion Ontario ("Draft Preliminary Report For Consultation, Blue Box Program Plan Review", February 6, 2009) has supported recognition of the role of energy recovery in Ontario's waste management hierarchy, including setting targets for energy recovery as an option preferable to landfill disposal. Support for this position has been echoed by the Association of Municipalities of Ontario.

The Dongara Pelletization Facility diverts residual waste from landfill and processes it into fuel pellets which may then be used to replace other solid fuels such as coal. Once Dongara achieves its operating capability to process 100,000 tonnes per year of waste from York Region, our diversion from landfill is expected to increase to more than 80%. Dongara is currently in the final stages of plant commissioning and is expected to achieve its full operational status in the near future.

York and Durham have teamed together to conduct a Residual Waste Environmental Assessment to consider and develop long-term solutions for residual waste management. It is currently anticipated that the environmental assessment approvals applications for this project will be submitted to the Ontario Ministry of the Environment in June 2009. Subject to the Ministry's review, construction of an energy from waste facility could begin in late 2010 with commencement of operations in 2013. As a municipally-owned partnership, the Durham York energy from waste project offers the long-term security of a local diversified, sustainable waste management system. Maintaining a diversified approach is a critical element of a prudent long-term waste management strategy to allow flexibility to respond to change.

Figure 5
Forecast 2010 WDO Diversion



4.1 Terminology and reporting of waste management data

There are a variety of terms and formulae commonly used to evaluate and report on waste management performance metrics. The distinctions between the terms and formulae used are not always clearly explained, leading to misunderstanding and confusion. The following clarifies the terminology definitions and calculations which will consistently be used by the Region. Further, a standardized protocol for reporting of waste management performance data is proposed to provide a more reliable flow of information.

Definitions of diversion vary based on materials included and components of waste management system examined

The following calculation is a generalized form of the diversion rate formula:

$$\text{Diversion Rate (\%)} = \frac{\text{Materials Diverted (tonnes)}}{\text{Materials Managed (tonnes)}} \times 100$$

The terms defined below describe methods that have been used for calculating diversion rates, using different waste stream quantities. Key definition elements differing from the WDO Diversion Rate are indicated below in bold.

Table 2
Definitions of Diversion Rates

Diversion	Definition
Waste Diversion Ontario Diversion Rate (Target: 60% by 2010, under review)	Residentially collected (including curbside, drop-off depots and special events) and processed: blue box materials, source separated organic materials, yard wastes, household hazardous wastes, electronics and other recyclables as well as backyard composting, bottle returns and Municipally sponsored re-use, less all processing residues. Divided by: All of the above and materials disposed at landfill or used for energy recovery (including all processing residues). York Region has adopted this as its primary diversion metric as it is the only formally recognized, Province-wide and audited standard diversion rate. Calculations of the Waste Diversion Ontario Diversion Rate performed by York or any party other than Waste Diversion Ontario can be considered as estimates only.
Diversion From Landfill Rate (Target: 65% by 2010, under review)	Residentially collected (including curbside, drop-off depots and special events) and processed: blue box materials, source separated organic materials, yard wastes, household hazardous wastes, electronics and other recyclables as well as backyard composting, bottle returns, materials used for energy recovery (i.e. Dongara and Durham York EFW) and Municipally sponsored re-use, less all landfilled processing residues. Divided by: All of the above and materials disposed at landfill only (including landfilled processing residues). This is referred to by York Region and is the only rate which considers energy from waste as diversion. This formula is used to assess performance related to the diversion goal stated in the Joint Waste Diversion Strategy of 65% diversion from landfill by 2010.
Local Municipal Capture Rate	IC& I and residentially collected (including curbside, drop-off depots and special events) blue box materials, source separated organic materials, yard wastes, household hazardous wastes, electronics, other recyclables and Municipally sponsored re-use. Divided by: All of the above and materials disposed at landfill or used for energy recovery. This definition does not account for processing residues and is referred to by some Local Municipalities as a measure of community participation in diversion efforts.

Diversions	Definitions
Curbside Collection Rate	IC&I and residentially collected (curbside only) blue box materials, source separated organic materials and yard wastes. Divided by: All of the above and materials disposed at landfill or used for energy recovery. This definition does not account for processing residues and is referred to by some Local Municipalities as a broad gauge of collection system contributions to diversion efforts.
Interim Diversion Rate Estimate	IC&I and residentially collected (including curbside, drop-off depots and special events) and processed: blue box materials, source separated organic materials, yard wastes, household hazardous wastes, electronics and other recyclables and Municipally sponsored re-use, less estimated processing residues. Divided by: All of the above and materials disposed at landfill or used for energy recovery (including all processing residues). This interim estimate is useful to both the Region and the Local Municipalities as it provides a surrogate value to gauge progress towards the Waste Diversion Ontario Diversion Rate. Precise calculation of the Waste Diversion Ontario Diversion Rate cannot be accomplished on an interim basis as not all data required is available until after the close of the calendar year.
OMBI Rate	Residentially collected (including curbside, Regional drop-off depots and Regional special events) blue box materials, source separated organic materials, yard wastes, backyard composting, household hazardous wastes, electronics, other recyclables and Regionally sponsored re-use. Divided by: All of the above and materials disposed at landfill or used for energy recovery. Ontario Municipal Benchmarking Initiative is an annual performance measurement tool used for comparison of participating Ontario municipalities. The OMBI Rate is one of 30 to 40 solid waste benchmarks compiled by OMBI. York and its Local Municipalities only occasionally refer to the OMBI Rate.

The following graphically represent the preceding definitions:

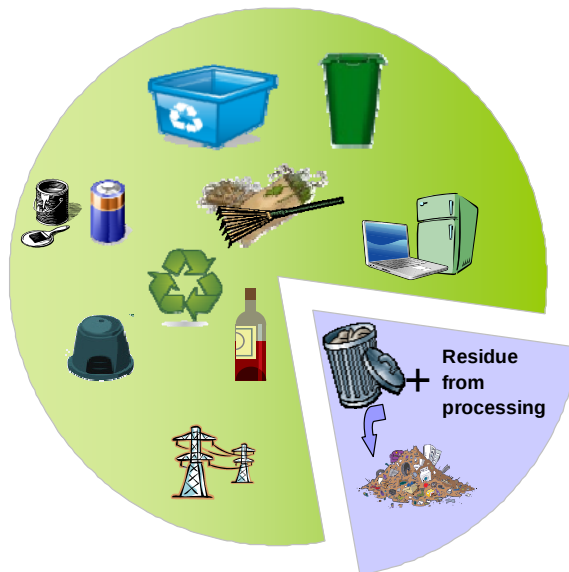
WDO Diversion Rate

Residential: Curbside Collection + Municipal and York Region
Drop-off Depot + Special Events



Diversion from Landfill Rate

Residential: Curbside Collection + Municipal and York Region
Drop-off Depots + Special Events



Legend



Local Municipal Capture Rate

IC&I and Residential: Curbside Collection + Municipal
and York Region Drop-off Depots + Special Events



Curbside Collection Rate

IC&I and Residential (curbside only)



Legend

	Yard Waste		Blue Box		Source Separated Organics		Bottle Return		Landfill
	Electronics & Large Appliances		Household Hazardous Wastes		Backyard Composting		Other Recyclables		Energy Recovery

Interim Diversion Rate Estimate

IC&I and Residential: Curbside Collection + Municipal
and York Region Drop-off Depots + Special Events

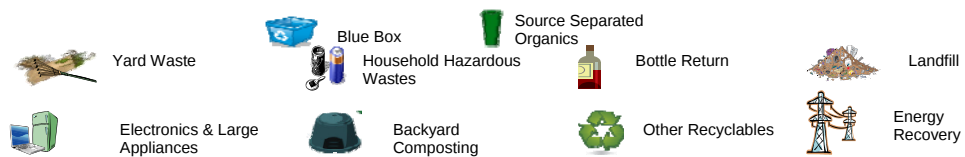


Ontario Municipal Benchmarking Initiative Rate

Residential: Curbside Collection + York
Region Drop-off Depots + Special Events



Legend



Standardized Quarterly Reporting Procedure

Based on feedback from the Local Municipal representatives and taking into consideration data that is available to the Region, a sample quarterly waste management summary report was developed as shown in Table 3.

The quarterly summary report will be provided to each Local Municipality including primary material quantities categorized as diversion or disposal for both York and the Local Municipality. Consistent with the methodology for calculation of the Waste Diversion Ontario Diversion Rate, energy recovery has been included in the disposal category on this summary form. Should the Province develop a policy that recognizes energy recovery from waste as a valid diversion activity consistent with York Region's sustainable waste management approach, this form will be revised.

Table 3
Sample Quarterly Waste Management Summary

5. FINANCIAL IMPLICATIONS

Achievement of diversion excellence ensures that the Region will not be penalized for its “poor performance” status as in prior years. In 2008, the performance penalty reduced Waste Diversion Ontario’s funding contribution to the Region by \$143,075. Waste Diversion Ontario funding is shared by the Region and the Local Municipalities. There are no additional financial implications directly associated with the information presented in this report.

6. LOCAL MUNICIPAL IMPACT

York Region and our Local Municipalities share responsibility for delivery of waste management services to the residents of the Region. The Local Municipalities have primary responsibility for curbside collection of materials while York receives, processes and disposes of these materials. York and our Local Municipalities continue to collaborate on shared programs such as promotion and education of waste management initiatives and the three-stream public space and parks pilot.

The Local Municipalities play a large role in contributing to York’s diversion success. The status of York Region as a diversion leader enhances the profile of our Local Municipalities.

Standardized quarterly reporting of solid waste management data will assist the Local Municipalities in assessing the on-going progress of their diversion programs. Use of standardized terminology and performance metrics will reduce confusion and provide a standardized basis of comparison of the Local Municipalities’ programs.

7. CONCLUSION

York Region’s 2007 Waste Diversion Ontario diversion rate is 45.7% and is projected to be 51% in 2008. Ongoing efforts are planned to reach the Waste Diversion Ontario goal of 60% in 2010. Standardized, quarterly reporting of solid waste management data to our Local Municipalities will avoid confusion and provide guidance to the Local Municipalities to assist in achievement of our diversion objectives.

For more information on this report, please contact Laura McDowell, Director of Environmental Promotion and Protection at extension 5077.

The Senior Management Group has reviewed this report.