

2013 Ontario Residential Waste Diversion Rates

February 26, 2015

Introduction

Each year, WDO receives reports from municipalities on the amounts of waste diverted through each of their waste diversion programs. These data are submitted to WDO through the Municipal Datacall, along with financial data for the Blue Box Program.

On November 28, 2014, WDO published [2013 Blue Box Tonnage Highlights \(Residential\)](#), an analysis of the different amounts (by tonnes) of Blue Box materials recycled in 2013. This “2013 Ontario Residential Waste Diversion Rates” report expands on the November 28th report by examining the total amounts of residential waste diverted by municipalities, including Blue Box and other materials. The data in this analysis are included in the following spreadsheets available on the WDO website:

1. [2013 Ontario Residential Waste Diversion Rates by Municipality](#)
2. [2013 Ontario Residential Waste Diversion Rates by Municipal Grouping](#) (criteria to determine the municipal groupings for Blue Box funding are available [here](#))

WDO uses information reported in the Datacall by municipalities to calculate residential waste diversion rates for each reporting municipality, as well as an overall average for the Province of Ontario. Diversion factors are included for the following activities:

- Municipally-operated recycling activities, including:
 - Blue Box materials;
 - Waste Electrical and Electronic Equipment (WEEE);
 - Municipal Hazardous or Special Waste (MHSW);
 - Other recyclables (e.g., scrap metal); and
 - Used tires¹.
- Municipally-operated composting activities (e.g., kitchen organics);
- A per capita² allowance for provincial deposit systems based on the deposit containers returned from the residential sector;
- An allowance for residential on-property management (e.g., backyard composting and grasscycling); and
- Municipally-operated reuse activities.

¹ Diversion of passenger and light truck tires is estimated by a credit of 7.1 kg/capita, as reported by Ontario Tire Stewardship.

² A credit of 5.51 kg/capita is included for the return of provincial deposit containers.

“Disposal tonnes” referenced in the spreadsheets include garbage, recycling and composting processing residues going to landfill and energy-from-waste (not considered diversion under the Waste Diversion Act). The following formula is used to calculate the residential waste diversion rates:

$$\text{Diversion Rate} = \frac{\text{Diversion Tonnes}}{\text{Generation Tonnes (Diversion + Disposal)}} \times 100\%$$

WDO verifies all the diverted or disposed material quantities reported in the Municipal Datacall. Depending on the data reported, WDO might adjust material quantities reported by a municipality in cases where, for example, disposal figures are missing, serviced household totals do not match, or particular figures are significantly out of normal range.

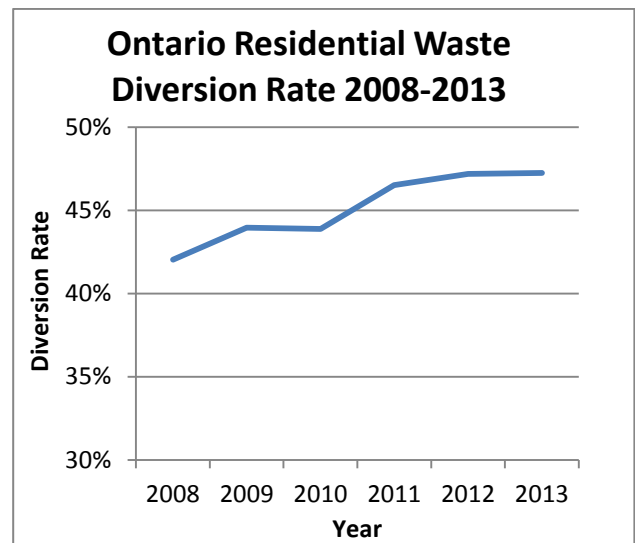
Diversion of organics and other recyclables leads to improved outcomes: Municipalities that expanded their residential waste diversion programs to include household organics and other recyclables such as residential Construction and Demolition (C&D) waste experienced higher increases in their diversion rates. Since the diversion rate is a weight-based metric, heavier C&D materials like brick and concrete have more of an effect on reducing garbage and bolstering overall residential waste diversion outcomes.

Trends being tracked: Information on the amount of residential waste diverted each year is essential to tracking and evaluating longer-term waste trends, particularly “lightweighting”, which is the shift to use of lighter-weight materials for packaging and printed paper discussed in [2013 Blue Box Program Cost & Revenue](#).

Analysis

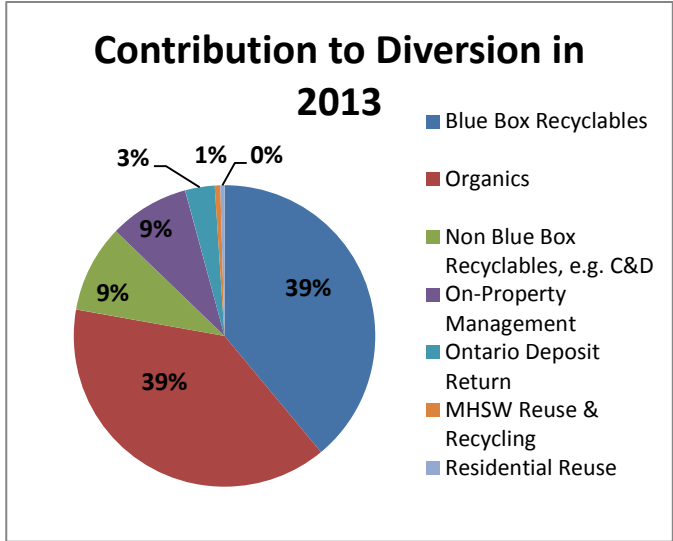
Diversion rates flat-lining

In 2013, the overall residential waste diversion rate for Ontario was 47.3%, almost the same as the 47.2% rate in 2012. Nevertheless, residential waste diversion rates have increased by more than five percentage points since 2008. The MHSW, WEEE and Used Tires programs started in 2008 and 2009.



Blue Box and organics continue to contribute most to residential waste diversion

The wastes that contribute most to overall residential waste diversion efforts are Blue Box and organics, each representing 39% of overall diversion in 2013. Potential gains in these diversion streams can be achieved through expansion of existing Blue Box programs to accept more or a standardized suite of materials, as collected Blue Box recyclables are recycled at a rate of 90%. Another option is to initiate a pilot program to collect household organics and/or leaf & yard waste.



Wide range in municipal residential waste diversion rates and tonnages

Among the 226 municipalities/municipal groups, recycling associations and First Nations that reported residential waste diversion data to WDO in 2013, there was a marked difference in diversion rates, ranging from 2.3% to 69.2%. The chart below shows that most programs have a residential waste diversion rate between 15% and 45%. However, the provincial residential waste diversion rate is higher than this range at about 47%. This is due to the handful of municipalities serving larger populations that operate more developed recycling programs, which support diversion of more tonnes of materials, leading to a higher average provincial rate.

Within individual recycling programs, the amount of waste diverted in 2013 ranged from 5 tonnes to 443,906 tonnes. Out of the 4.9 million tonnes of residential waste generated in Ontario in 2013, 2.3 million tonnes, or 174 kg per capita, were diverted from landfill.

