

2011 Municipal Datacall Residential GAP Diversion

What is a Residential GAP Diversion Rate?

“GAP” refers to Generally Accepted Principles and has been adopted¹ as a standard for municipal waste measurement reporting. The GAP process was initiated in late 1999 to address a need to develop a common reporting framework that could be used by municipalities across Canada to report waste generation, diversion and disposal.

The following General Principles were adopted to support GAP:

- # 1: Tonnes will be used as the unit of measurement;
- # 2: Kg per capita will be the common reporting unit;
- # 3: Local circumstances will be taken into account; and
- # 4: Waste quantities from unusual events (e.g. storms, floods, etc.) should not be used for comparison in the annual report.

The annual Municipal Datacall administered by Waste Diversion Ontario (WDO) compiles information on residential materials diverted and disposed by Ontario municipalities. These data can be utilized to calculate a Residential GAP diversion rate for each municipality and association of municipalities participating in the Municipal Datacall.

The Municipal Datacall Residential GAP calculation includes:

- An allowance for provincial deposit systems based on the deposit containers returned from the residential sector;
- An allowance for provincial Passenger and Light Truck tire diversion, as reported by Ontario Tire Stewardship;
- An allowance for residential on-property management through backyard composting, grasscycling and evapotranspiration resulting from use of aerated carts for organics programs;
- Municipally operated (directly or through contracted services) reuse activities;
- Municipally operated (directly or through contracted services) recycling activities including Blue Box materials, Other Recyclables, Waste Electronics and Electrical Equipment (WEEE) and Municipal Hazardous or Special Waste (MHSW);
- Municipally operated (directly or through contracted services) centralized composting activities for household organics, leaves and yard waste; and
- Disposal of garbage and recycling and composting processing residues through energy-from-waste and landfill.

Under Residential GAP:

- Diversion = allowance for deposit system + allowance for on-property management + reported reuse + reported recycling (net of processing residues) + reported composting (net of processing residues);
- Disposal = processing residues + EFW + Landfill;
- Generation = diversion + disposal; and
- Diversion rate = diversion divided by generation multiplied by 100 to yield a percentage.

¹ GAP has been adopted by Statistics Canada, Ontario Ministry of Municipal Affairs and Housing as a performance measure for waste management reporting, WDO and numerous municipalities.

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WDO has been verifying all diverted tonnes reported in the Municipal Datacall since assuming responsibility for the Datacall in 2003. WDO expanded the verification to include disposed tonnes and the GAP calculation in the Municipal Datacall for 2006, 2007, 2008, 2009, 2010 and, with this report, 2011.

As occurred in the 2006, 2007, 2008, 2009 and 2010 Municipal Datacalls, some municipalities reported estimated disposed tonnes or did not report disposed tonnes due to the lack of available weigh scale data for their garbage.

Where municipalities had neither weights nor volume estimates for their garbage, WDO allocated disposed tonnes by calculating the average garbage disposed per capita in the municipal group to which the municipality belonged and then extrapolating this average across the program's reported population. Where a municipality reported disposed tonnes from only a portion of their total households, WDO calculated the missing tonnes using the reported disposed tonnes and the associated households to generate an average per capita to apply to the missing households.

Where municipalities had volume estimates for disposed tonnes, these estimates were typically based on the volume of collection trucks, containers or landfill cells with factors, reflecting varying degrees of compaction, to convert volume to weight. Both the process of estimating volume and the choice of conversion factor led to uncertainty regarding the accuracy of the estimated disposed data. Where estimated disposed tonnes appeared to be outside of the typical range, WDO removed the reported estimated tonnes and, instead, allocated disposed tonnes using the methodology applied to municipalities that did not report garbage tonnes (described in the preceding paragraph).

This same approach of allocating tonnes was also used in a number of instances where municipalities reported estimated leaf and yard waste tonnes that were outside of the typical range.

For presentation of data on a per capita basis, WDO calculated the population in seasonal households contributing to diversion and garbage tonnage by assuming that each seasonal household was equivalent to one-sixth of a full time single family household and had 2.5 residents.

Preparing for the 2011 Residential GAP Diversion Rates

To improve the accuracy of the Residential GAP in future years, municipalities are encouraged to:

- Report only population and households receiving diversion and disposal services
 - Exclude population and households in unserved wards or townships
 - Report the number of seasonal households so that WDO can adjust reported population data to include seasonal population
- Report all of the municipally managed materials and garbage for the population and households reported
- Report all diverted and disposed materials in tonnes
 - Where weigh scales are unavailable, weigh sample loads and extrapolate from the sample weights rather than relying on volume estimates
- Exclude all IC&I tonnes from the residential diverted and disposed tonnes reported so that only residential tonnage is included in the calculations.