

17. Solid Waste Management Services



WHAT IS THE SERVICE?

The goal of Solid Waste Management Services is to reduce or divert the amount of waste ending up in landfill sites and to lessen the detrimental impact on the environment. Solid waste management services provide a variety of services to help residents and businesses reduce the amount of garbage they generate. The services include but are not limited to:

- ▶ Collection and disposal of garbage
- ▶ Collection, processing and sale of recyclable materials
- ▶ Collection and processing of leaf and yard waste, food organics and the sale of compost generated from these materials
- ▶ Collection, reuse and disposal of municipal hazardous and special waste
- ▶ Community recycling and reuse centres
- ▶ Comprehensive public education, awareness and marketing programs
- ▶ User-pay programs or bag limits for residential garbage and user-pay programs for businesses that have waste collection (recycling may be collected as well) through their municipality (e.g., yellow bag program)

Municipalities provide all of the services to the majority of residential households, and a portion of the services may be provided to businesses.

Objectives of solid waste management services include:

- ▶ Minimizing the impact on the environment and maximizing landfill capacity by providing a variety of waste diversion programs to the residential, industrial, commercial and institutional sectors (ICI)
- ▶ Providing cost-effective and efficient waste management services to communities within the municipal regulatory framework
- ▶ Providing efficient and economical waste collection, waste diversion and disposal services that meet the needs of the community
- ▶ Increasing awareness of solid waste management issues and promoting waste reduction through education



WHAT ARE THE MAJOR SERVICE DELIVERY ISSUES?

Issues facing the delivery of Solid Waste Management Services are:

- ▶ Expanding diversion – to successfully include multi-residential buildings and new material types
- ▶ Market demand - finding purchasers for the increasing volume of recyclables
- ▶ Public awareness - education and promotion of waste diversion programs and to clarify any confusion over recyclability of constantly changing packaging
- ▶ Lack of regulatory requirements - for small commercial businesses to divert recyclable materials
- ▶ Fuel costs - rapidly increasing transportation and fuel costs outstrip approved budgeted funds

WHAT ARE THE RESULTS?

What is the percentage of residential waste diverted away from landfill sites?

FIG. 17.1 Percentage of Residential Solid Waste Diverted from Landfills

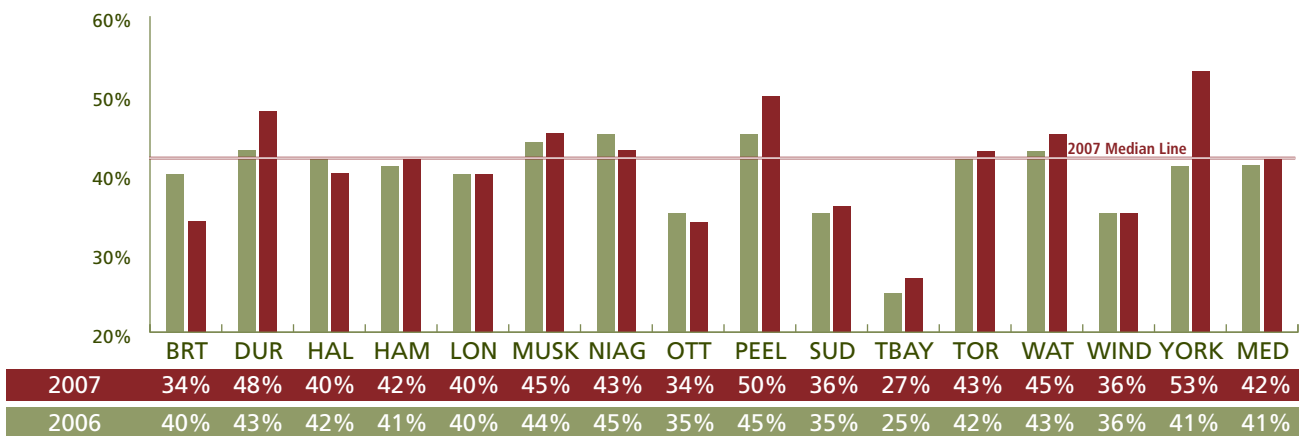


Figure 17.1 shows the percentage of residential waste that is diverted from landfills. This includes organics, blue box, leaf and yard, household hazardous and special waste, and other recyclable materials (e.g., wood, metal, tires) diverted through curbside, multi-residential and community recycling centres and depot collection, or reduced at the source (e.g., backyard composting).

Although the majority of municipalities show an increase in the amount of waste diverted, achieving a 60% diversion rate by 2008 as set by the Province of Ontario may prove difficult for most of the 15 OMBI municipalities. Municipalities continue to promote existing programs and expand diversion services through the introduction of organics composting programs and the expansion of recycling and organics collection to the multi-residential and commercial sectors. Municipalities will continue to work towards implementing integrated waste management systems to provide more effective service to residents and businesses.

How much does it cost to collect a tonne of garbage from the curb?

FIG. 17.2 Operating Cost for Residential Garbage Collection per Tonne

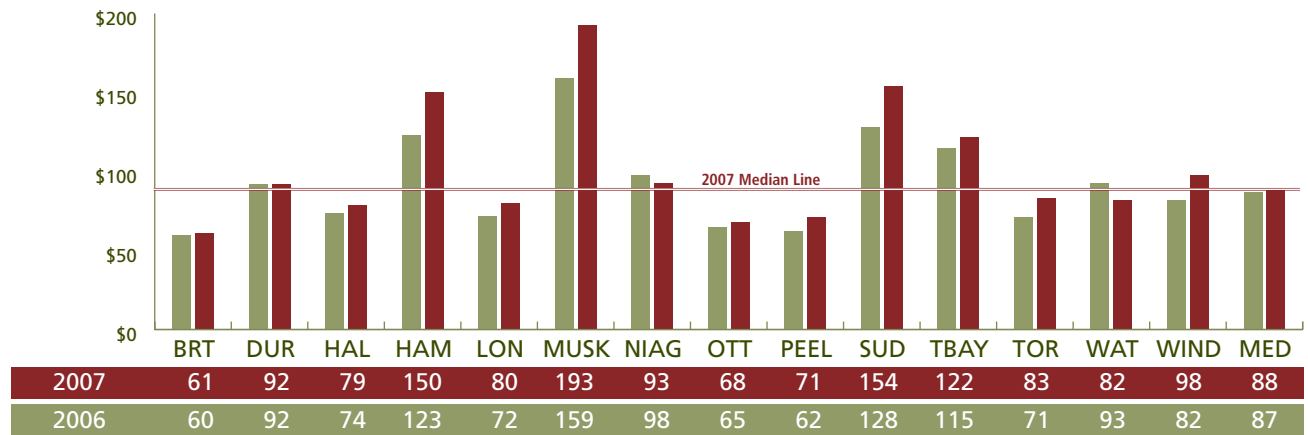


Figure 17.2 shows the average cost per tonne for each municipality to collect the curbside waste of residential clients. The Regional Municipality of York operates a two-tier system and is not responsible for the collection of garbage. Increasing fuel prices will impact the cost of garbage collection for municipalities who perform collection with in-house resources, as well as those municipalities that have fuel price escalators in their contract prices, or operate a fleet of supervisory vehicles.

How much does it cost to dispose of a tonne of garbage?

FIG. 17.3 Operating Cost for All Streams of Solid Waste Disposal per Tonne



Figure 17.3 shows the average cost per tonne for each municipality to dispose of solid waste. The cost to dispose of a tonne of garbage has increased in 12 of the 15 municipalities.



This trend can be attributed:

- ▶ to the declining landfill capacity, resulting in increased landfill rates
- ▶ the additional costs of transporting and disposing of waste outside a community
- ▶ the age of the landfill and how capital costs are managed
- ▶ costs associated with the incineration of garbage
- ▶ the use of private contractors and private landfill sites
- ▶ an increase in leachate treatment and management costs as landfill sites age.

Fuel cost increases will impact those municipalities who export waste by providing upward pressure on contract costs.

How much does it cost per tonne to divert residential waste?

FIG. 17.4 Operating Cost for Residential Solid Waste Diversion per Tonne

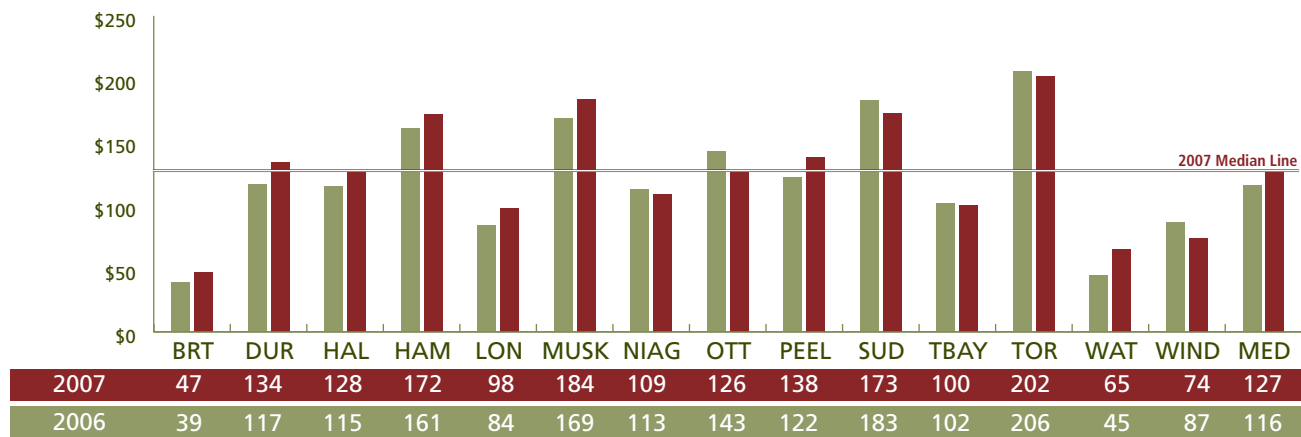


Figure 17.4 shows the average cost per tonne of diverting residential waste. Waste diversion costs have been increasing due to municipal efforts to enhance waste diversion and lessen the impact of waste management on the environment. It is more costly to collect and process diverted material than dispose of regular garbage, even though there is revenue associated with the sale of recyclable material that helps to offset a portion of the costs. The Regional Municipality of York operates a two-tier system and is not responsible for the collection of diverted material.

While costs of diverting waste have increased, diversion is more cost-effective than the combined cost of collecting and disposing of waste, making diversion activities beneficial from both an environmental and financial perspective.

WHAT SHOULD YOU CONSIDER WHEN REVIEWING THESE RESULTS?

Each municipality's results are influenced to varying degrees by a number of factors, including:

- ▶ Service delivery model - how municipalities promote, manage and enforce their garbage collection and recycling programs, frequency of collection (weekly vs. bi-weekly), the existence of bag limits and housing densities
- ▶ Diversion policies - the number of diversion programs and the rate of public participation, capacity of processing facilities and success in securing end-markets for recyclables
- ▶ Seasonal residents, and/or tourists programs and their participation
- ▶ Residential mix of single-family homes and multi-unit residential buildings
- ▶ Urbanization - urban vs. rural mix of community, the distance between collection points (housing density)

For more information about the results, contact the Municipality's representative listed in Appendix F, page 94.