MUNICIPAL WASTE IN ONTARIO

Municipalities' Progress In Eliminating Waste Shipments to Michigan by 2010

December 2010

Executive Summary

In an exchange of letters between Ontario's Environment Minister, and Michigan Senators Debbie Stabenow and Carl Levin in August 2006, an agreement was made to stop cross-border shipments of municipally-managed waste to Michigan.

Using a baseline of 1.34 million metric tonnes (1.47 million US tons) of municipal waste shipped, these municipalities committed to:

- A 20 per cent reduction in shipments of municipally-managed wastes by the end of 2007
- An additional 20 per cent reduction by the end of 2008
- A total elimination of municipally-managed waste shipments by the end of 2010

The baseline figure refers to the actual amount of municipally-managed waste tonnages shipped to Michigan in 2005 as reported by municipalities to the Ministry of the Environment. Reductions are measured by a method of self-reporting from each municipality.

Two of the four Greater Toronto Area (GTA) municipalities (Peel and York) did not ship any municipally-managed waste to Michigan in 2009 as they had stopped shipping municipally managed waste to Michigan as of 2008. All municipalities are committed to increasing the diversion of waste from disposal. As of December 31, 2010, the remaining two GTA municipalities (Toronto and Durham) are expected to have met the terms of the commitment when the shipping of municipally-managed waste to Michigan will cease.

The Role of the Province vs. Municipalities

The Province of Ontario is responsible for:

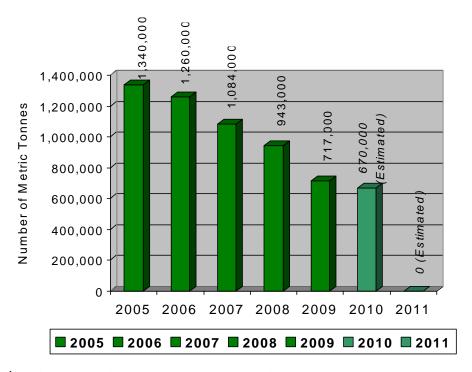
- Setting and enforcing environmental standards and requirements for waste diversion and disposal.
- Supporting municipalities and the private sector by providing the necessary tools for waste diversion and the disposal of residual waste.
- Issuing approvals to waste disposal sites and waste haulers to meet regulatory requirements.

The municipalities are responsible for:

- Developing and providing direct waste management services to residents, and in some cases, local businesses, including programs for waste diversion and disposal of residual waste.
- Developing waste management infrastructure.
- Complying with provincial waste management standards.
- Funding and implementing diversion programs.

Total Reduction in Waste from Michigan

The municipalities are making progress in meeting their reduction goals for waste shipped to Michigan. See illustrated graph below.



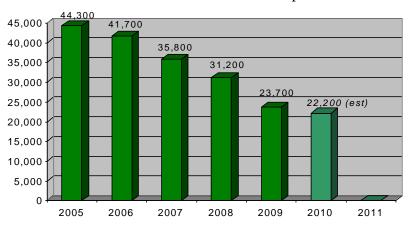
It is estimated that in 2011, over 545,000 metric tonnes (600,000 US tons) of the 670,000 metric tonnes (737,000 US tons) of waste shipped in 2010 will be disposed in Ontario landfills. The remainder is projected to be disposed in non-Michigan landfills or handled by other waste management methods.

Significant Reduction in Trucks Traveling to Michigan

Municipalities reported a reduction in waste shipments to Michigan by 623,000 metric tonnes (685,000 US tons) in 2009 relative to the 2005 baseline. In 2011, relative to the 2005 baseline, a reduction of 1,340,000 metric tonnes will be achieved, equivalent to over 40,000 fewer garbage trucks entering Michigan.

To this end, municipalities have expanded Blue Box programs and introduced curb-side pick-up of kitchen wastes. In addition, Ontario has made it easier for municipalities to manage waste within their borders.

Estimated Number of Trucks per Year



Other Waste Diversion Initiatives

The development or expansion of several potential waste diversion facilities will help municipalities achieve their targets. These include:

Compost Industry Development

There continues to be growth in the compost industry in Ontario. In 2009, five Ontario municipalities adopted household organics collection programs, raising the total number of municipal programs to 36. In 2009, almost 850,000 metric tonnes (935,000 US tons) of residential waste (including household organics and leaf and yard waste) was collected for diversion from landfill, representing an increase of almost 5 per cent over the 2008 total collected. Investment in new organics processing facilities is also occurring, with new facilities being planned for Toronto and under construction in Guelph.

Ontario is proposing to update both the regulatory framework for compost and operational standards for composting facilities. This would foster the development of more composting infrastructure, and the success of existing facilities.

Bag-It-Back Program

Introduced in February 2007, the Bag-it-Back program is a depositreturn program for wine, beer and spirit containers. It encourages consumers to return alcohol containers for a refund, which are then recycled into high-end products, such as glass bottles and fiberglass insulation.

Recycling Tires, Electronics, Paints, Solvents and Batteries

Ontario now has a producer funded program that helps consumers reuse and recycle used tires and promotes the production of higher value end products such as automotive parts and playground surfaces. Ontario has also made continuous improvements to diversion programs for waste electronics and household hazardous wastes such as paints and batteries to help keep more of these materials out of landfills.

Waste Diversion Act Review

Ontario's review of the Waste Diversion Act, which enables diversion programs in Ontario, looked at the concept of a zero waste society and driving diversion through making producers responsible for the waste from their products The Ministry is currently considering results from consultation with stakeholders and the public.

Increasing Disposal Capacity

In addition to recycling initiatives, the development or expansion of several potential waste management facilities will help municipalities achieve their targets. These include:

More Disposal Capacity

Over the past several years, approximately 55 million metric tonnes (61 million US tons) of new landfill capacity has been approved.

Expansion of Warwick Landfill

- Annual capacity is 750,000 metric tonnes (825,000 US tons) per year
- The total expanded capacity will be 18.75 million metric tonnes (20.63 million US tons)

Establishment of Liberty Energy

• Over 1,300,000 metric tonnes (1,430,000 US tons) of biosolids and biomass waste

Green Lane Landfill

• The City of Toronto, the largest municipality shipping its waste to Michigan, has completed the purchase of the Green Lane landfill, which will enable it to eliminate its waste shipments by the end of 2010.

New Energy-From-Waste Facility

In November 2010, Durham and York Regions obtained approval under Ontario's Environmental Assessment Act (EAA) for the construction and operation of their energy-from-waste facility. When operational, the facility will have the capacity to manage up to 4.9 million metric tonnes (5.4 million US tons) of municipal solid waste after diversion over the 35 year planning horizon for York and Durham Regions.

Municipality	Current and Future Disposal Locations
Toronto	Municipally owned Ontario landfill
Peel	Private sector owned Ontario landfill
York	Municipally owned Ontario landfill and private sector processing facility
Durham	Municipally owned Ontario landfill and private sector owned non-Michigan landfill until energy-from-waste facility becomes operational (expected in about 3 years)

WHAT MUNICIPALITIES ARE DOING TO MEET THEIR WASTE REDUCTION COMMITMENT

Growth in the Greater Toronto Area (GTA) The GTA is comprised of the City of Toronto and the regional municipalities of York, Durham, Peel and Halton. The GTA is highly urbanized because of its vital role in both Ontario's and Canada's economies. At its core is Toronto, the third-largest financial centre in North America.



The GTA is growing rapidly. It has:

- More than 100,000 new residents settling each year
- The highest rate of growth in the country for new immigrants
- More than half the annual population growth in Ontario
- A growth rate that is three times faster than Ontario as a whole.

This growth is expected to continue. GTA's population is projected to grow from 5.9 million in 2006 to almost 8.3 million in 2031.

Despite this growth, the amount of garbage being shipped to Michigan has decreased due to innovative diversion programs by all municipalities.

GTA Municipal Summary



Key Facts

- Population: 5,349,730Households: 1,984,517
- 2008 range of waste diversion rates (from disposal): 44% - 53% (municipality dependent)
- Blue-box recycling programs available municipal-wide
- Leaf and yard waste programs are in place and available municipal-wide
- Source-separated organic (SSO) programs for kitchen scraps are in place and available municipalwide

Municipal Overview

- All municipalities (Toronto, Peel, York and Durham) have Blue Box programs for recyclables and Green Bin programs for organics
- Each municipality has implemented innovative waste disposal alternatives, including waste incineration and energy recovery and an e-waste recycling program for electronics.

Toronto

Related to reduction:

 Purchased its own landfill, which will provide the city with disposal capacity for 20-25 years

Other initiatives:

- Implemented a volume based user pay system for residential waste collection
- Approved plans to develop additional organic processing capacity, for 90,000 metric tonnes (100,000 US tons) per year.

Peel

Related to reduction:

- Has not been shipping municipal waste to Michigan since 2008 Other initiatives:
- Set a two-bag limit for garbage collection (from three bags)
- Opening five recycling centres
- Launching recyclables collection and a material recovery facility to process 130,000 metric tonnes (143,000 US tons) per year.

York

Related to reduction:

- Has not been shipping municipal waste to Michigan since 2008 Other initiatives:
- Expanded Blue Box recycling program to include 25 new materials, such as a full range of plastics, empty paint cans, aerosol containers, margarine tubs and other household containers
- Construction of Community Environmental Centres to increase reuse and recycling
- Joint partnership with Dufferin County to construct a regional Green Bin composting facility.

Durham

Related to reduction:

• Negotiated a contract for disposal of the Region's waste in a non-Michigan landfill starting January 1, 2011 and continuing until the EFW facility is operational.

Other initiatives:

- Implemented a bi-weekly garbage collection limit of four bags in all of the eight municipalities
- Made several proposals to Regional council to support its 2010 waste diversion programs, including a proposal to make one additional blue box available to each household in Durham.