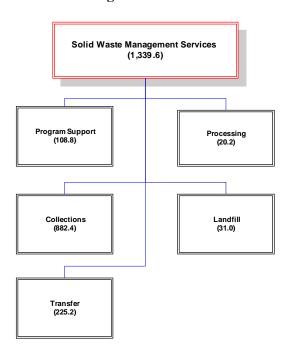


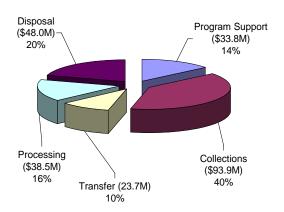
# **Solid Waste Management Services**

The Solid Waste Management Services Division's mission is to provide effective and efficient waste management and resource recovery services to residents, visitors and businesses in the City of Toronto in order to maintain a clean and healthy City and to minimize the impact of waste on the environment.

### **Program Profile**



2007 Recommended Operating Budget by Service Total = \$237.9M (Gross)



### 2007 Key Strategic Directions and Priorities

- Achieving Council approved diversion targets
- Securing short/long term processing and residual treatment capacity
- Managing closed landfill sites
- Integration of the Green Lane Landfill
  - o EA process
  - o Operating Plan
- Complete EA terms of reference and initiate EA process
- Coordinate with other ABCDs, activities that support the Mayor's Clean and Beautiful City Program
- Liability for Perpetual Care of former closed landfill sites an the adequacy of the Perpetual Care Reserve Fund
- Investigate and develop new diversion initiatives and technologies
- Litter prevention and reduction strategies

### 2006 Key Accomplishments

- Secured long term Ontario based landfill space (Green Lane)
- Initiated EA process and CEAT
- Solidified transfer contract for waste disposal
- Achieved 42% waste diversion goal in 2006
- Achieved a 40% litter reduction target in 2006

### 2008 / 2009 Outlook

- Continue/start with the waste diversion initiatives identified in the Solid Waste Management Services
  Multi-Year business Plan.
- Explore innovative funding mechanisms to support future waste diversion initiatives
- Roll-out the new recycling carts in single residential homes
- Implement the Green Bin Program in multi-unit residences
- Undertake an environmental assessment for residual waste

### **Background**

### **Program Objectives for 2007**

The SWM Services mandate includes the collection of waste/recyclables/organics; the operation of transfer stations; blue box material recovery facilities (MRF), a Source-Separated Organics (SSO) processing facility and an enhanced Litter Program to support the Clean and Beautiful City initiatives. The Division also manages several waste diversion programs including; source separated organics collection and processing, environment days, backyard composter distribution, recovery of household hazardous waste, tire and white goods recycling

The 2007 SWMS Operating Budget focuses on achieving Council approved diversion targets, securing long term processing and residual treatment capacity, undertaking an environmental assessment process, managing closed landfill sites; as well as working towards Council mandates, such as Clean & Beautiful City. The Division also accepts waste from the commercial sector.

# **Program Support**

**Program: Solid Waste Management Services** 

### **Service Area Description:**

Program Support provides strategic direction on waste reduction and disposal initiatives to ensure Council and Divisional objectives are met while maintaining effective and efficient waste management and resource recovery services to residents, visitors and businesses in the City.

# Program Support (180.8) Collections (882.4) Disposal (31.0)

### Service Levels provided

- To plan, implement and coordinate new solid waste policies, programs and facilities
- To provide technical support to the Collections, Transfer, Processing and Disposal Operations
- To provide financial and analytical support to Senior Management
- To provide computer routing and mapping support for Collection and Litter Operations
- To maintain the customer data base of small businesses for Yellow Bag Program

### **Emerging Challenges and Opportunities:**

To secure new/additional funding from WDO for new/existing recycling materials

To develop new funding to finance the Division's waste diversion initiatives in meeting diversion goals

To secure and stabilize long/short term processing capacity for the City's growing diversion programs

To investigate and develop new diversion initiatives and technologies

# **Collections**

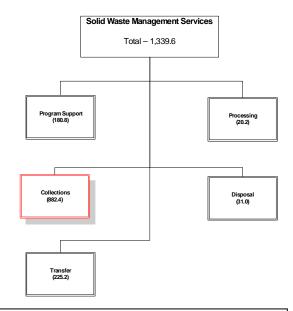
**Program: Solid Waste Management Services** 

### **Service Area Description:**

The Collection Service provides effective and efficient waste and recycling collection to maintain a clean and healthy city and minimize the impact of waste on the environment through recycling and organics collection programs.

### Service Levels provided

- Provide residual waste, recycling, organics, yard waste and white goods collection to single residential homes, multi-unit residences, the City's Agencies, Boards, Commissions & Departments, institutions and small commercial establishments
- Ensure a safe and healthy environment for employees and reduce workplace injuries.
- Collect litter within public road allowances to ensure that the street are free of litter
- Continue service enhancements to support Council's "Clean and Beautiful City" initiative



### **Emerging Challenges and Opportunities:**

Re-routing of waste, recycling, organics and yard waste collection routes in areas of the City affected by new District boundaries

Co-ordinating and re-evaluating collection routes following the implementation of cart recycling for single unit homes (conditional upon success within pilot areas and council approval)

Implementing collection services for new diversion tactics in order to reach the City's goal of waste diversion (e.g. multi-residential organics collection and collection of bulky items for reuse)

Converting multi-residential locations currently using curb-pads, compounds or flower pots for garbage to containerized rear bin or front end garbage collection.

Improving customer service reporting and routing, due to the implementation of the 311 project.

Continue to seek out opportunities to improve litter operations and to develop partnerships with stakeholders to promote cleanliness across the City.

## **Transfer**

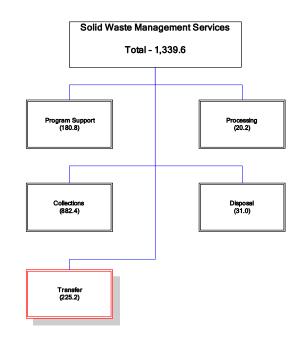
**Program: Solid Waste Management Services** 

### **Service Area Description:**

The Transfer Service operates 7 transfer stations effectively and efficiently to maintain a clean and healthy City and to transfer waste, recyclables, source separated organics and leaf and yard waste safely to appropriate processing or disposal facilities.

### Service Levels provided

- Receive the following materials from the City's residents, ABCD's and the ICI sector and coordinates the transfer of these materials to processing facilities or landfills;
  - Residual Waste
  - Source Separated Organics (Green Bin)
  - Single Stream (e.g. fibre/container)
  - Leaf & Yard Waste
  - Household Hazardous Waste



### **Emerging Challenges and Opportunities:**

Continuing to transfer waste tonnage to the United States while managing various border issues.

Transition to an Ontario based landfill during the next several years.

Increasing opportunities for recycling requires an ongoing shift of resources from waste operations to recycling operations.

# **Processing**

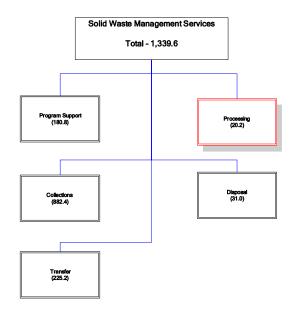
**Program: Solid Waste Management Services** 

### **Service Area Description:**

Processing of recyclables, source separated organic and leaf and yard waste materials to protect and to minimize the impact of waste on the environment in order to maintain a clean and healthy City.

### **Service Levels provided**

- Ensure processing capacity for the following materials;
  - Source Separated Organics (Green Bin)
  - o Single Stream (e.g. fibre/container)
  - Leaf & Yard Waste
  - Household Hazardous Waste
- Coordinate the sale of recyclable materials



### **Emerging Challenges and Opportunities:**

Continuing to implement efficiencies at the Dufferin Organics Processing Facility to increase the processing capacity of source separated organics.

Continuing to find short term and long term processing capacity for source separated organics and single stream materials.

Continuing to improve technologies i.e. mechanical sorting of single stream.

Continuing to provide safe disposal of household hazardous waste material for City of Toronto residents.

# **Disposal**

**Program: Solid Waste Management Services** 

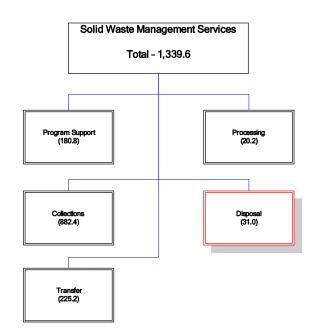
### **Service Area Description:**

The Disposal Service through a contracted service provides disposal services in an environmentally sound manner, for non-hazardous residual solid waste generated in the City of Toronto.

Through the maintenance of engineered systems and monitoring and reporting on surface water, groundwater and landfill gas, the Disposal Service also provides for monitoring and remedial work for the former closed landfills.

### Service Levels provided

- Ensure compliance for the 18 sites with Certificates of Approval.
- Inspection of over 190 landfills.
- Provide disposal services in an environmentally sound manner, for non-hazardous residual solid waste generated in the City of Toronto.



### **Emerging Challenges and Opportunities:**

Providing perpetual care landfill monitoring and maintenance for City's old landfills.

Ensuring adequate funding for the perpetual care of former landfill sites

Continuing to construct landfill gas and landfill leachate control systems at old landfills.

### **Key Performance Measures:**

### • Efficiency Measures:

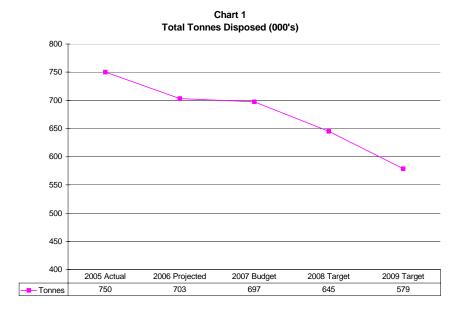


Chart 1 reflects the total tonnes disposed from the actual in 2005 to a projection in 2009. During this time the total tonnage is decreasing as a result of the City of Toronto implementing various diversion initiatives (e.g. three stream collection system) aimed at achieving Council's approved diversion goals

Chart 2
Tonnes of Residential Waste Diverted (ooo's)

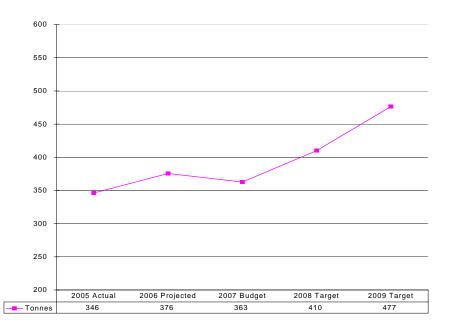


Chart 2 reflects the total tonnes of residential waste diverted from the actual in 2005 to a projection in 2009. Residential waste tonnage diverted is trending upwards over this time as a result of the implementation of various diversion initiatives such as the Green Bin and Single Stream Programs.

Chart 3
Residential Waste Diversion Rate

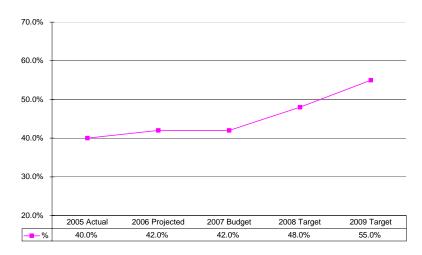


Chart 3 reflects the residential waste diversion rate from the actual in 2005 to a projection in 2009. The residential diversion rate is expected to continue to trend upward as the Green Bin (Source Separated Organics) and Single Stream Programs are completely implemented in single residences across the City and other diversion initiatives are implemented.

Chart 4 Net Cost Per Household (\$)



Chart 4 reflects the net cost per household from the actual in 2005 to a projection 2009. As a result of implementing various diversion initiatives; such as the SSO and Single Stream Programs, operating costs per household are expected to increase.

Chart 5 Net Cost Per Tonne (\$)



Chart 5 reflects the net cost per tonne from the actual in 2005 to a projection in 2009. As the City's diversion initiatives continue to be introduced the net cost per tonne will continue to increase.

### **Key OMBI Benchmarks**

Figures and charts below are based on the OMBI methodology for calculating the measures.

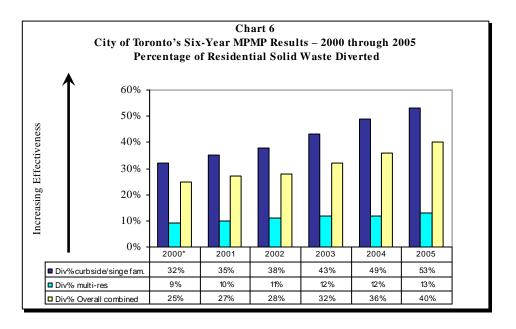


Chart 6 reflects residential diversion rates by housing component from 2000 to 2005. During this period there has been a steady improvement in the areas of single residence houses/curbside. Similar advances have not been made in the multi-residential/apartment sector where recycling and diversion tends not to be as convenient for residents

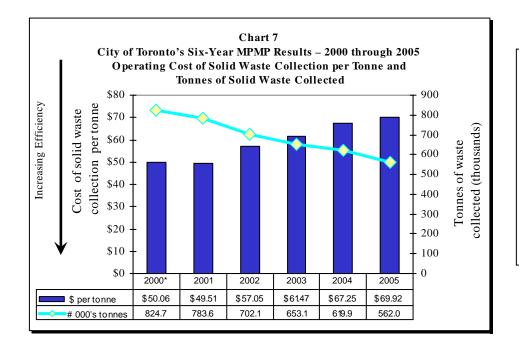


Chart 7 shows Toronto's six-year MPMP results for the cost of solid waste collection per tonne, contrasted against the tonnes of waste collected. Gross costs actually decreased from 2000 to 2005; however, the cost per tonne increase came from a 32% decrease tonnes collected over this period arising from enhanced diversion programs.

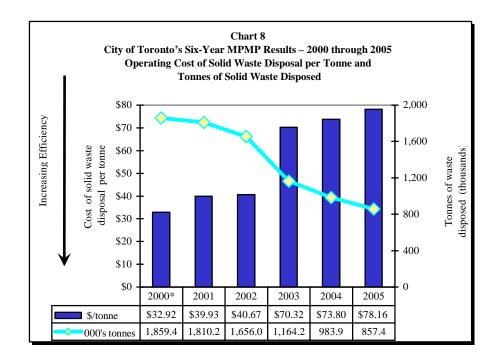


Chart 8 shows Toronto's six-year MPMP results for the waste disposal cost per tonne contrasted against the tonnes (in thousands) of waste disposed each year. During this time period there was a significant increase in the City's cost per tonne for waste disposal as a result of a change in our waste disposal process (from Keele Valley to Michigan) as well as a significant decline in the volume of waste disposed (loss of commercial waste which has gone to other service providers).

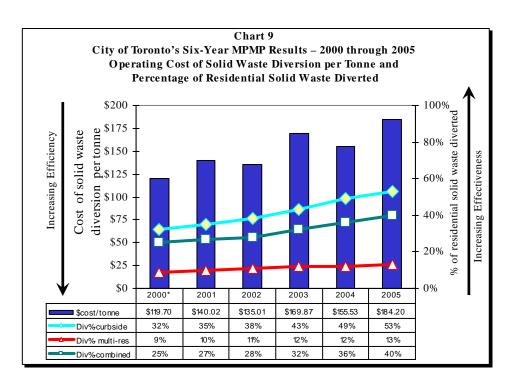


Chart 9 shows Toronto's six-year MPMP results for the cost of solid waste diversion per tonne, contrasted against diversion rates.

If just gross costs were considered, there would be a steady increase in the diversion cost per tonne each year as new materials added to enhanced diversion programs tend to be more expensive. However, in the cost per tonne calculation, revenues from the sale of recycled materials are also a component of the calculation and commodity prices tend to be volatile and can vary significantly from year to year. High commodity prices were for example, the primary reason for the decrease in the diversion cost per tonne experienced in 2004.