City of Toronto’s
Long Term Waste Management Strategy

8th Canadian Waste Resource Symposium

Annette Synowiec
Manager, Waste Management Planning
Solid Waste Management Services

April 27 – 29, 2016
# Overview

## Solid Waste Management Services

- Background
- Statistics, Programs & Assets

## Long Term Waste Management Strategy

- Background
- Vision Statement
- Gaps, Challenges, Opportunities
- Recommended Draft Strategy
- Implementation Plan
- Next Steps
Solid Waste Management Services
SWMS Statistics

- Serve nearly 1 million units
  - 460,000 single family homes
  - 417,000 multi-unit homes
  - 13,000 small commercial
  - 8,500 litter/recycle bins
  - 10,000 parks bins
  - 1,000 special events/year
  - Private commercial and industrial waste accepted at transfer stations

- Waste/Diversion Statistics
  - Manage approximately 1 million tonnes waste annually
  - Recycle/Compost 53% of all waste generated
    - 66% single residential homes
    - 26% multi-residential homes
Services & Diversion Programs

- Blue Bin recycling (bi-weekly)
- Green Bin organics (weekly)
- Garbage Collection (bi-weekly)
- Leaf and Yard Waste Collection (Mar-Dec)
- HHW Program – Depot, Toxic Taxi
- Environment Days
- Durable Goods Collection (i.e. large appliances, furniture)
- Electronics Program – Depot and collected curbside
Assets

- 7 Transfer Stations (6 with HHW Depots)
- Green Lane Landfill
- 1 Operating Organics Processing Facility
- 1 Organics Processing Facility under expansion
- 4 Collection Yards and 1 Litter Collection Yard
- 160 Closed Landfills
- Over 600 vehicles and pieces of equipment
- Over 1.4 million garbage, recycling, and green bins
City of Toronto’s Integrated Waste Management System

Step 1: Waste collected from residential, commercial and institutional sources or received directly at Transfer Station.

Step 2: Transferred to one of 7 Transfer Stations

- Anaerobic Digestion Facilities: 15% of Total Waste
- Leaf & Yard Waste Composting Facilities: 11% of Total Waste

Recycling Facilities: 23% of Total Waste
Other Recyclables: 4% of Total Waste

Green Lane Landfill: 47% of Total Waste

Step 3: From Transfer Stations, waste is sent to recycling facilities, other recycling depots, organic processing facilities or Green Lane Landfill
Long Term Waste Management Strategy
Video
Why Do We Need a Waste Strategy?

The City manages almost 1,000,000 tonnes of waste each year.

- Maximize Life of Green Lane Landfill
- Reduce, Reuse, Recycle
- Minimize Need for New Infrastructure
- Work Together
- Improve Waste Diversion
- Maintain Flexibility
The Waste Strategy Vision

Together, we will **Reduce** the amount of waste we generate, **Reuse** what we can, and **Recycle** and recover the remaining resources to reinvest back into the economy.

We will **embrace** a waste management system that is **user-friendly**, with programs and facilities that balance the needs of the **community** and the **environment** with long term financial sustainability. Together, we will ensure a safe, clean, beautiful and healthy City for the future.
The following gaps, challenges and opportunities were identified in the current waste management system:

**Program & Education**
- Public Education & Engagement
- Waste Reduction & Reuse
- Value of Food & Food Waste
- Performance Measures
- Multi-residential Waste Diversion (Program)

**Facility/Infrastructure**
- Multi-residential Waste Diversion (Facility)
- Drop-off Facilities
- Future Waste Processing Capacity
- Waste Recovery Technologies
- Residual Waste Disposal Capacity

**Internal & External Influence/Pressure**
- Regulatory, Control and Role/Responsibility Challenges
- Waste Financing System
- Waste Services for IC&I Sector
- Impacts of Energy Costs on the Waste Management System
- Impacts of Intensification
- Changing Waste Stream
Integrated Waste Management System

**INTERNAL SYSTEM INFLUENCES/PRESSURES:**
- City of Toronto Policy
- Growing Population
- Changing Demographics
- Enforcement

**SYSTEM FINANCING**
- Promotion & Education
- Generation, Reduce & Reuse
- Collections Drop-Off
- Transfer
- Recycling & Processing
- Residual Disposal
- Recovery

**EXTERNAL SYSTEM INFLUENCES**
- Federal and Provincial Legislation
- Extended Producer Responsibility
- Programs and Infrastructure Funding
- Climate Change
- Economic Conditions
- Markets and Market Access
- Changing Waste Composition
Consultation & Outreach

- Surveys
- Key Stakeholder Meetings
- Vendor Days
- Website and Social Media
- Stakeholder Advisory Group
- Community Events and Open Houses
- Project Updates
- Waste(ED) Speaker Series
Key Messages from the Public, Stakeholder Advisory Group and other Key Stakeholders:

- Work to mitigate climate change
- Prioritize 3Rs, particularly reduce and reuse
- Consider partnerships
- Enhance enforcement
- Treat waste as a resource and reinforce a circular economy
- Prioritize our community’s health & environment
The Draft Waste Strategy focuses on reducing, reusing and recycling/composting waste to promote the importance of resource conservation and reduced environmental impacts.
Apartments and Condos

In addition to the 3Rs opportunities, the Draft Waste Strategy recommends other ways to increase diversion at multi-residential buildings.

Data Management and Accessibility
Support for Community Composting
Policies and Enforcement

55% of Torontonians live in apartments and condos and 45% live in single family homes.

- Residents in single family homes divert 66% of their waste
- Residents in apartments & condos divert 26% of their waste
The City provides some waste management services to businesses, along with disposal options at City transfer stations and Green Lane Landfill. Most businesses in the city receive waste management services from private waste haulers.

The City is considering options that encourage greater diversion of waste from businesses, including new policies and programs.

Exploring recycling by-laws and incentives

Adding more small commercial customers to the City’s Yellow Bag Program
Construction, Renovation and Demolition waste refers to materials that are generated from home and yard renovations. These materials can include items such as wood, drywall, plaster, asphalt, shingles, etc.

The Province of Ontario’s proposed Waste-Free Ontario Act identifies these materials as potential candidates for disposal bans.
The Draft Waste Strategy is recommending the development of a Mixed Waste Processing Facility with Organics Recovery. The need and/or timing for its development depends on the success of the reduction, reuse and recycling recommendations during the Waste Strategy implementation.

Q. What is a Mixed Waste Processing Facility with Organics Recovery?

A. It’s a facility where waste is further processed to remove recyclable materials and organic materials.
Green Lane Landfill

Toronto’s residual waste goes to Green Lane Landfill. With our 3Rs strategy, we can extend its lifespan.

Future Capacity of Green Lane Landfill
Green Lane Landfill is projected to have capacity for Toronto’s waste until approximately 2040, provided we:

- continue to focus on implementing 3Rs programs;
- encourage effective participation in existing diversion programs; and
- strategically use existing contracts to divert some City of Toronto waste to other approved landfills.
Promotion and education tools will be used to help implement the Waste Strategy.

- Online Tools
- Support Volunteers
- Targeted Outreach Conversations
- Establish New Advisory Committees
- Social Media
- Targeted Communications
- Create a Community Partnership Unit
Additional Implementation Tools

A range of additional programs and implementation tools have been identified to support the recommended Waste Strategy.

**RESEARCH**  
Advance innovative ideas and promote new markets

**LEGISLATION**  
Explore city-wide controls to increase diversion

**FINANCING**  
Ensure services and programs are sustainably financed
The Waste Strategy will be implemented over the next 30+ years with most of the reduction, reuse, and recycling recommendations being implemented in the first ten years as part of a waste reduction plan.

Promotion and education will occur throughout the Waste Strategy implementation.

Review of the Waste Strategy every 5 years provides flexibility to address future changes.

Reduce, Reuse, Recycling over 10 years (2016 to 2026)

Need and timing for additional processing and disposal to be determined
Implementation Roadmap

The Waste Strategy will be implemented over the next 30+ years with most of the reduction, reuse, and recycling recommendations being implemented in the first ten years as part of a ten year waste reduction plan.

Promotion and education will occur throughout the Waste Strategy implementation.

Review of the Waste Strategy every 5 years provides flexibility to address future changes.

Planning begins for approved Waste Strategy options.

Redirect Waste from Green Lane Landfill

Food Waste Reduction Strategy

Mobile Drop-off Depots

Multi-Residential Policies and Enforcement

Recycling By-laws and Incentives for Businesses

Community Composting

Neighbourhood Drop-off Depots

Research, Development and Innovation Unit

The need and timing of a Mixed Waste Processing Facility with Organics Recovery is based on the success of other programs. Pilot studies may occur in the first 5-10 years.

2016

City-Wide Controls to Increase Diversion

Textile Collection and Reuse Strategy

Sharing Library

Expanding Yellow Bag Program to More Businesses

Reverse Vending Machines

Depots and Policies for Home Renovation Waste

The Waste Strategy recommendations extend the life of Green Lane Landfill to approximately 2040.

2017

2018

2019

2020

2021

2022

2023

2024

2025

2026

Note: Icons represent implementation. Planning begins earlier.
We All Benefit

Waste Strategy Benefits

- Increased Reduction, Reuse and Recycling
- Greater Environmental Awareness
- Waste as a Resource
- Behaviour Change
- Reduced Greenhouse Gas Emissions
- New Community Partnerships
- Toronto as an Innovation Leader
- Cost Savings
- Creation of Green Jobs
- Promotion of Equity
- System Flexibility
- Longer Landfill Life

TORONTO
Monitoring performance and progress is important to ensure that the Waste Strategy is effective in reducing waste overall. This allows us to see potential areas for improvement, future trends, and the return on investment as new programs or facilities are implemented.

**Examples of Some Tools to Measure Success**

- Diversion Rates
- Waste Generation per household
- Customer Satisfaction
- Greenhouse Gas Emissions
- Cost
What’s Next?

**June 2016** - Final Waste Strategy presented to Public Works and Infrastructure Committee.

**July 2016** - Final Waste Strategy presented to City Council for approval.

**2016 onwards** - City staff will work with City of Toronto residents, businesses, stakeholders, agencies and community representatives to implement the approved Waste Strategy.
Thank You!
Don’t forget to visit: toronto.ca/wastestrategy

Question & Answer