

City of Toronto's Long Term Waste Management Strategy

8th Canadian Waste Resource Symposium

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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



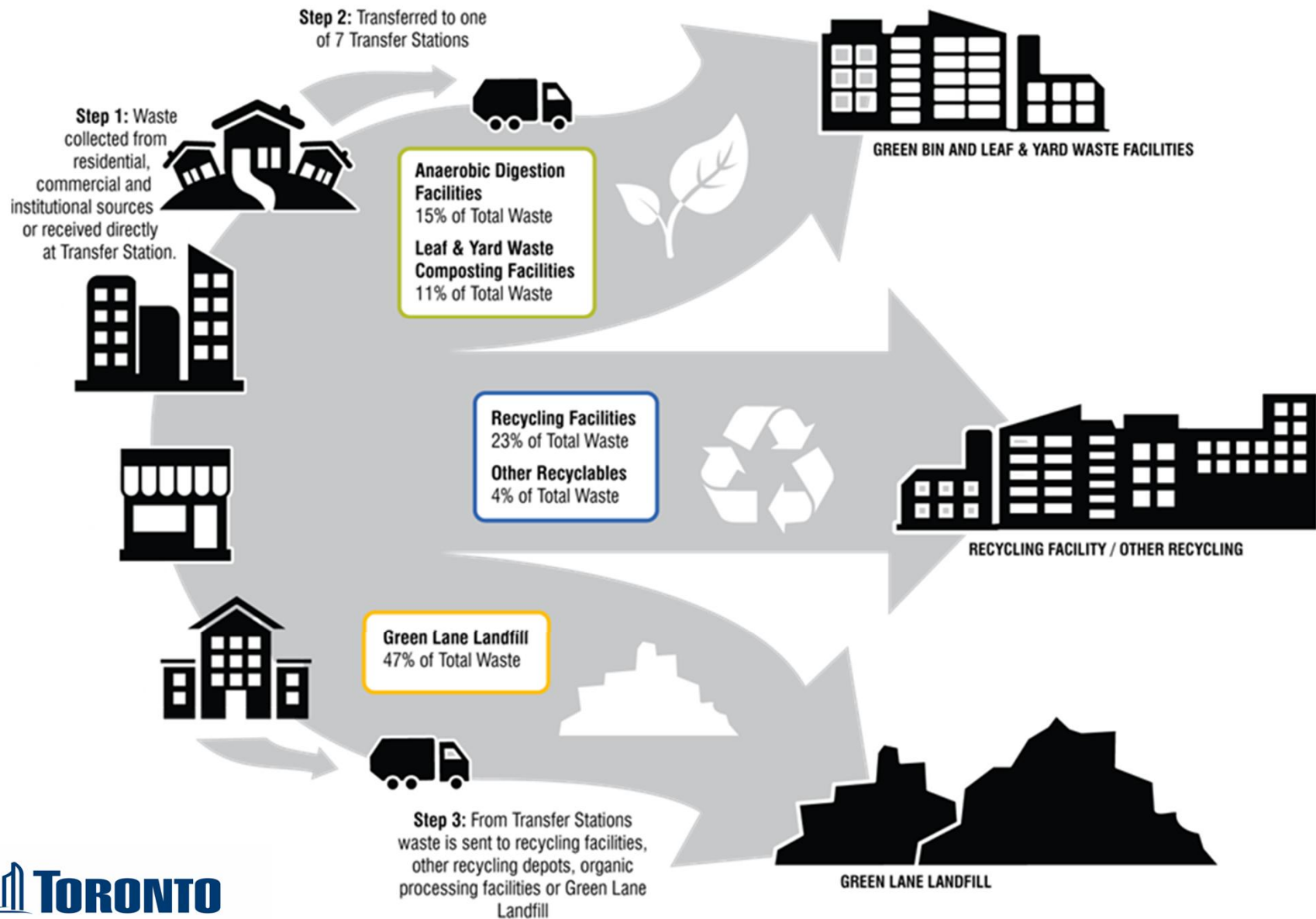


Assets

- 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 bins



City of Toronto's Integrated Waste Management System



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

Improve
Waste
Diversion

Minimize Need
for New
Infrastructure

Work
Together

Maintain
Flexibility

The Waste Strategy Vision

The 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.

Gaps, Challenges, Opportunities

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



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**

What We Heard

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 Recommended Options



Reduce. Reuse. Recycle.

The Draft Waste Strategy focuses on reducing, reusing and recycling/composting waste to promote the importance of resource conservation and reduced environmental impacts.



**Food waste
Reduction
Strategy**



**Textile
Collection
and Re-Use
Strategy**



**Mobile
Drop-Off
Service**



**Sharing
Library**



**Swaps and
Exchange
Events**



**Reverse
Vending
Machines**

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

Businesses

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.



Exploring recycling by-laws
and incentives



Adding more small
commercial customers
to the City's
Yellow Bag Program

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

Home Renovators

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.



Construction, renovation
and demolition waste
drop-off depots and policies



Construction,
renovation and
demolition waste bans

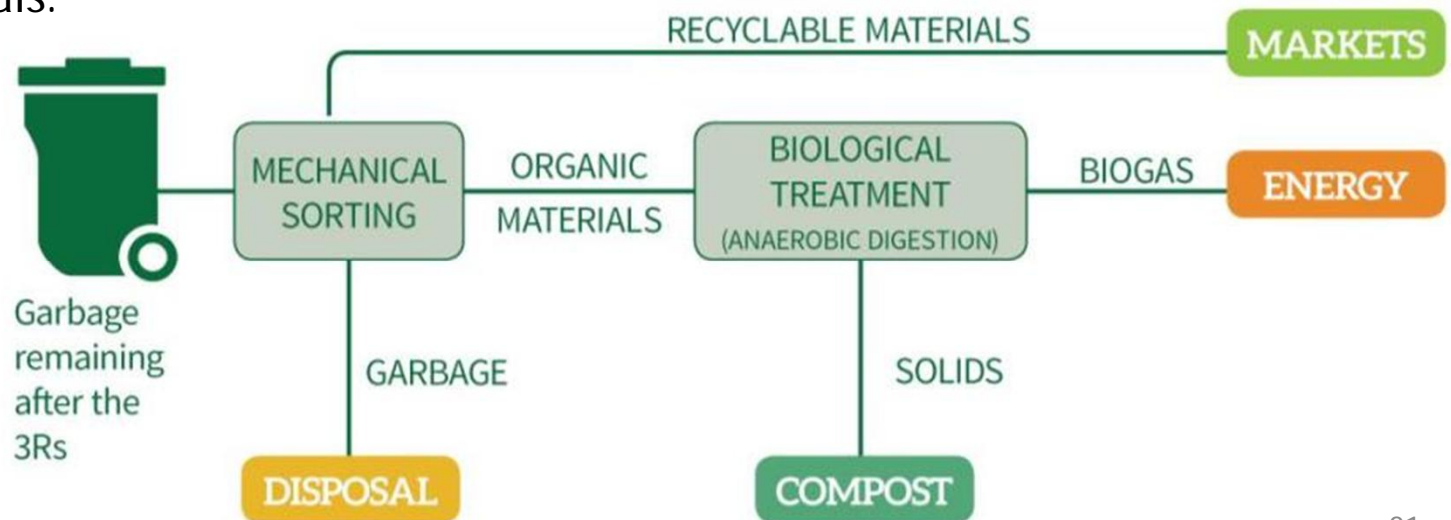
The Province of Ontario's proposed Waste-Free Ontario Act identifies these materials as potential candidates for disposal bans.

Recovering More Resources

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 & Education

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

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 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.

2016 ----- 2021 ----- 2026 ----- 2040

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

Need and timing for additional
processing and disposal to be
determined

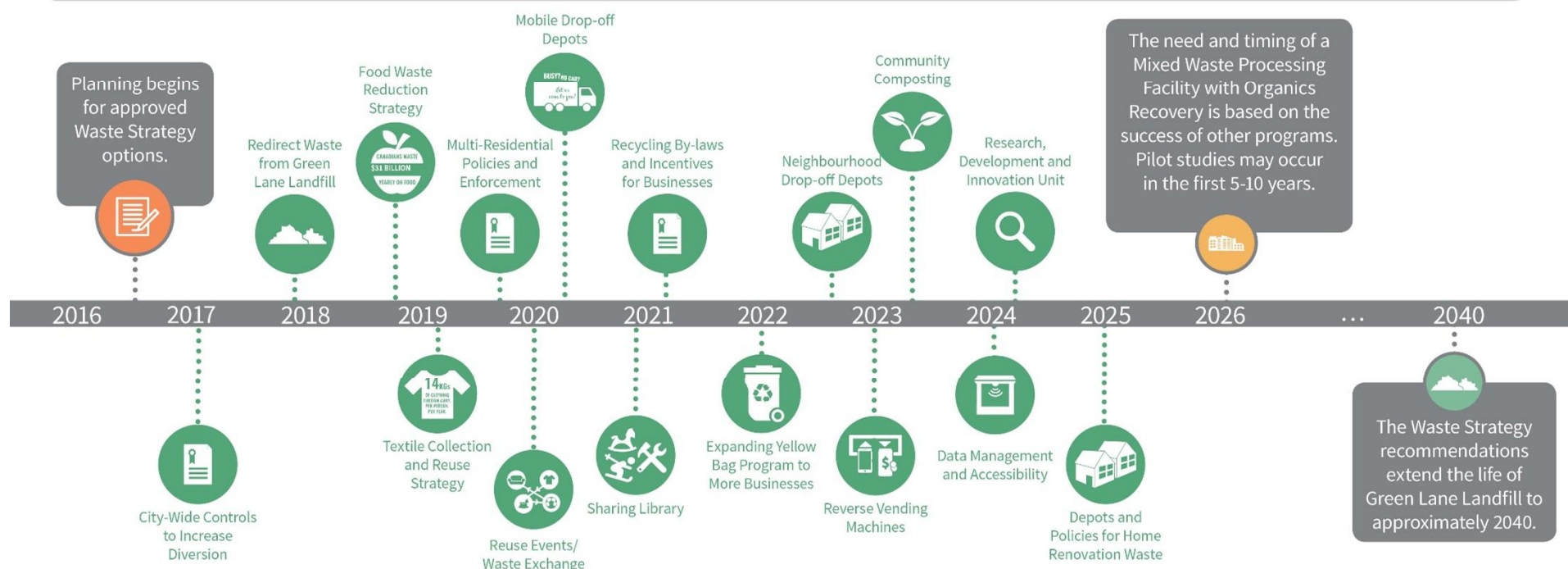
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Waste Strategy Benefits



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

Measuring Success

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