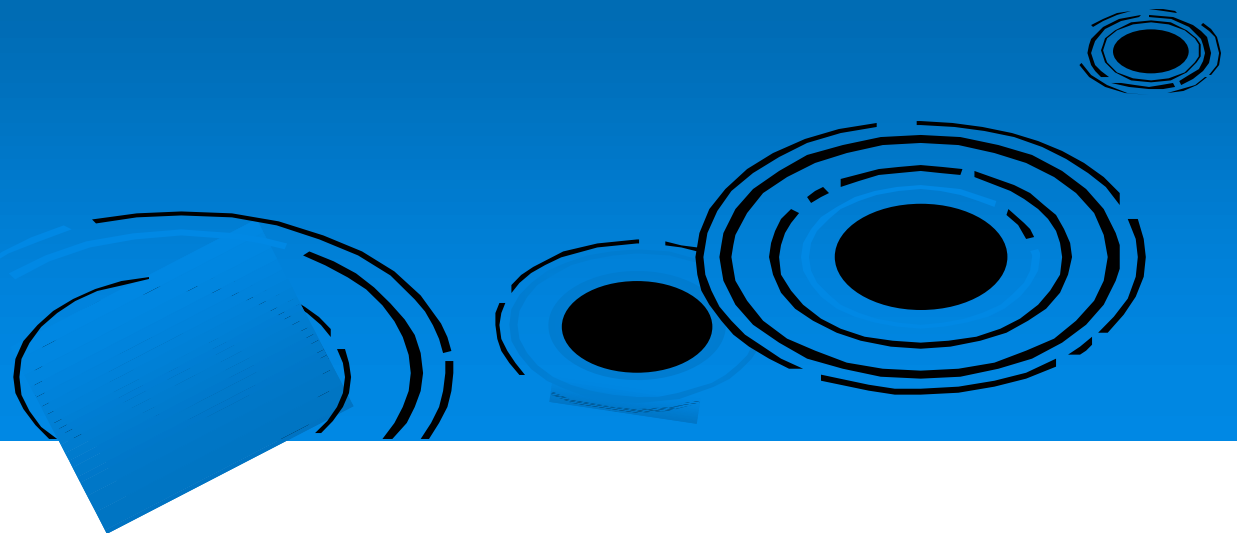


# Proposed Mixed Waste Processing Facility

SSO & Recycling Infrastructure  
Sub-Committee  
June 3, 2009

Geoff Rathbone  
General Manager  
Solid Waste Management Services  
City of Toronto



# Residual Waste Working Group

- Citizen Advisory Group, comprised of eight (8) members
- To collaborate with Solid Waste Management Services (SWMS) Staff and Study Consultant to help find a solution to manage Toronto's residual waste
- Provided input, advice and feedback on consultant draft reports
- Plan and participate in public consultation in Toronto related to the study
  - liaison with community groups outside City boundaries

# Mixed Waste Processing Technology

- 75,000 tonnes/yr diversion from landfill
  - Approximately 8% of overall 70% diversion strategy
  - Approximately 150,000 tonnes inbound feedstock
- Possibility of scaling facility to manage additional wastes
  - Request for Proposal will include options for additional processing capacity
- Potential facility outputs
  - Class 'B' compost – Ministry of the Environment (MOE) response considering diversion pending

# Mechanical Biological Processing Inputs/Outputs

## Input

150,000 tonnes/yr residual waste

## Outputs

### Diversions:

5,000 tonnes recyclables

60,000 tonnes Class 'B' compost

10,000 tonnes biogas/moisture loss

### Residual Waste:

75,000 tonnes process residues to landfill

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**150,000 tonnes outputs**

# Study Scope of Work

- Define a residual waste strategy from 2010 to 2035
  - Assess technologies and site options – develop screening criteria
  - Undertake a health impact screening
  - Provide capital and operating cost estimates
  - Golder Associates retained in September 2008
  - Consultant selection by SWMS and Residual Waste Working Group (RWWG)

# Screening Criteria

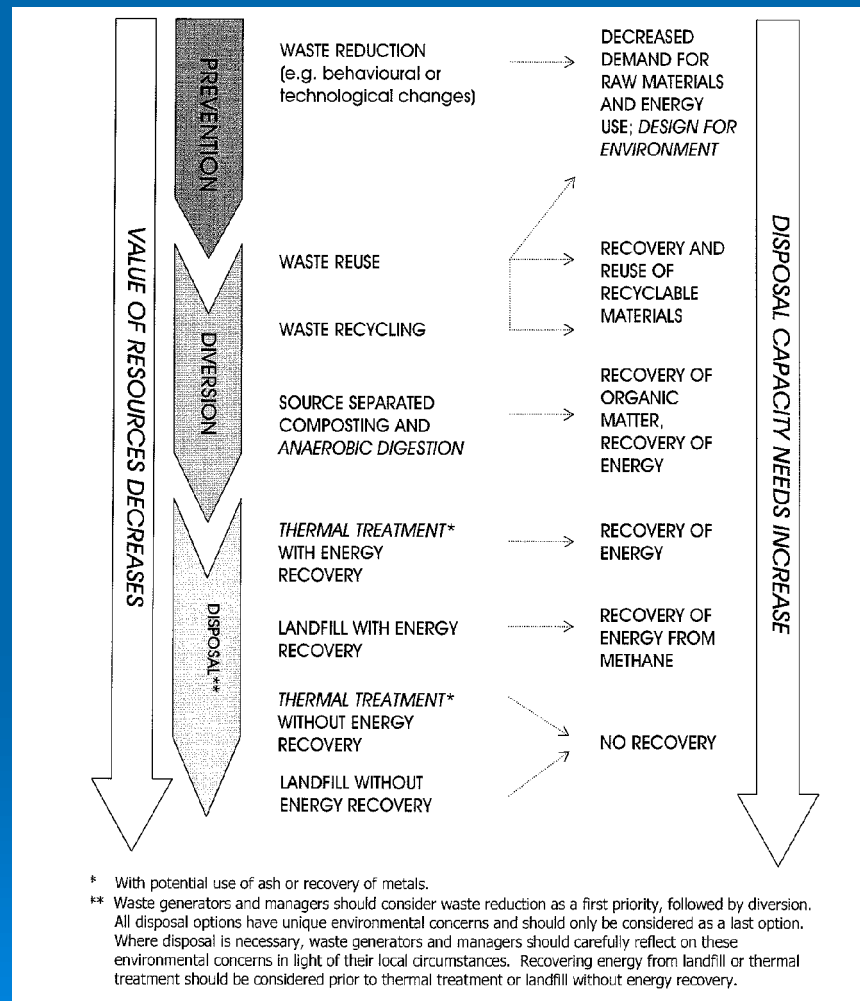
## Technology

- Ability to divert 75,000 tonnes/yr from landfill
- Ability to conform to MOE policy statement regarding definition of diversion
- Realistic ability to market recovered materials
- Ability for markets to meet Ontario Environmental Standards
- Ability to dispose of residual in Green Lane Landfill
- Technology to have proven operating history
- Ability to have facility under construction by 2010

## Site Selection

- Sites currently owned by the City, (within or outside City boundaries)
- Sites with existing MOE Certificate of Approval
- Initial estimate of land required between 3-12 ha
- Existing land uses for the site and surrounding area compatible with mixed waste processing facility
- Site accessibility
- Site servicing, including water, sewer and energy

# MOE Policy Statement



# Technology Screening

	Mechanical Separation	Mechanical Biological Treatment	Mechanical Biological Treatment with Refuse Derived Fuel	Mechanical Separation with Refuse Derived Fuel	Thermal Treatment with Energy Production	Steam Classification
Divert 75K tonnes/yr	No	Yes	Yes	Yes	Yes	Yes
MOE Policy Statement	Yes	Yes	No	No	No	No
Market Materials	Yes	Yes	Yes	Yes	Yes	Yes
Meet Ontario Standards	Yes	Yes	Yes	Yes	Yes	Yes
Dispose of Residual	Yes	Yes	Yes	Yes	Yes	Yes
Proven History	Yes	Yes	Yes	Yes	Yes	No
Construct by 2010	Yes	Yes	Yes	Yes	No	Yes
Retain?	No	Yes	No	No	No	No



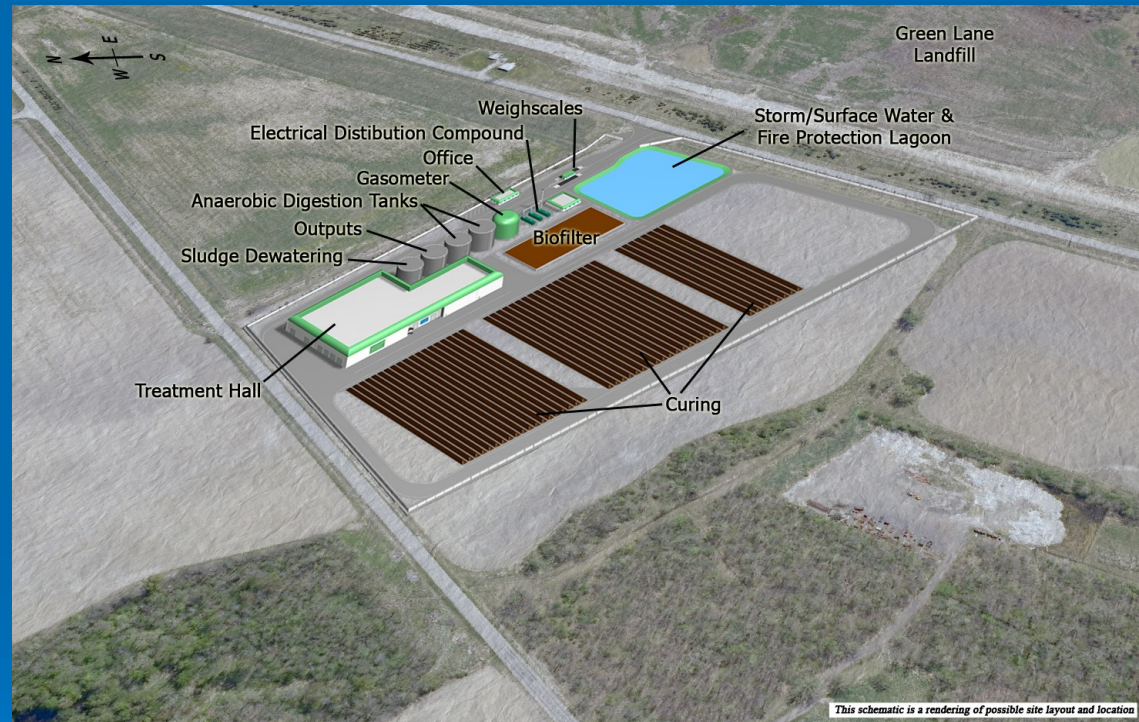
# Short Listed Technologies

- Option 1: Mechanical Biological Treatment (MBT) – Aerobic
- Option 2: MBT – Anaerobic Digestion (AD) – “Preferred”
- Both options will divert approximately 75,000 tonnes from an inbound of approximately 150,000 tonnes/yr plus possible biosolids
- Detailed overview included in “Work Package 1&2 Report – Planning Study for the Assessment of Mixed Solid Waste Processing Technology and Siting Options City of Toronto (Golder Associates, May 2009)”

# Site Screening

Site	Screening Results
Disco Road Transfer Station	Excluded – insufficient property available. Expanded SSO site.
Dufferin Transfer Station	Excluded – insufficient property available. Expanded SSO site.
Ingram Road Transfer Station	Excluded – insufficient property.
Commissioners Transfer Station	Excluded – insufficient property.
Bermondsey Transfer Station	Excluded – insufficient property.
Victoria Park Transfer Station	Excluded – insufficient property.
Scarborough Transfer Station	Excluded – insufficient property.
Beare Road Landfill	Excluded – insufficient property.
Morningside Landfill	Excluded – insufficient property.
Green Lane Landfill	To be considered for further evaluation.
Brock West Landfill	Excluded – insufficient property.
Keele Valley Landfill	Excluded – insufficient property.

# MBT – Anaerobic Mixed Waste Processing Facility



# Next Steps

## Consultations

### A) Toronto based consultation:

- Managed by RWWG
- Web based consultation
- Stakeholder discussions

### B) Landfill site area consultation (Southwold Township)

- 2 Public Open Houses (September 2009)

### C) Staff consultation:

- Presentations to Green Lane Landfill Public Liaison Committee and First Nations Liaison Committee: October 2008, March 2009; and Southwold Township: March 2009

- Prepare, release and complete Request Expression of Interest process – June 2009 to April 2010

- Retain consultant to assist staff to develop Request for Proposal