

Flower City



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# City of Brampton



## INFORMATION MEETING Presentation

Incineration and Waste Processing Transfer and  
Disposal Study (File: No5)

# Overview

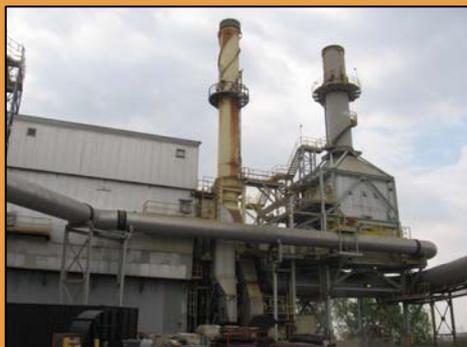
- **Introduction**
- **Classification of Types of Uses**
- **Jurisdictional Responsibilities**
- **Preliminary Planning Principles and Policy Directions**
- **Implementation**
- **Next Steps**
- **Discussion**

# Introduction

- Marshall Macklin Monaghan was retained by the City of Brampton to undertake the Incineration and Waste Processing, Transfer and Disposal Study.
- The purpose of the Study is to:
  - to evaluate the appropriateness of the City's land use designations, applicable land use policies, as well as transportation modes and routes; and
  - to recommend implementation policies and zoning measures to guide the development of incineration and waste processing, transfer and disposal uses.



# Type of Uses/Operations



Incineration and thermal degradation to create electricity from waste



Process wastes sent most often for material recovery (i.e. sorting, recycling, compaction, composting)



Transfers wastes from one vehicle to another



Transfer or processing of hazardous wastes (i.e., liquids)



Power generation uses through combustion

# Study Process

- The Study consists of the following phases:
  - **Inventory and Review (Phase 1)** - summarizes the existing policy framework, provides a regulatory overview and discusses the potential land use effects from existing and emerging technologies. The findings are documented in the Technical Research Compendium, June 2006 (February – June 2006).
  - **Evaluation and Analysis (Phase 2)** – based on the input received through the public consultations, we will recommend a planning policy approach for the regulation of incineration and waste processing, transfer and disposal uses (July 2006 – May 2007).
  - **Implementation (Phase 3)** - will involve amendments to the City's Official Plan and Zoning By-law to implement the preferred planning policy approach (May – June 2007).

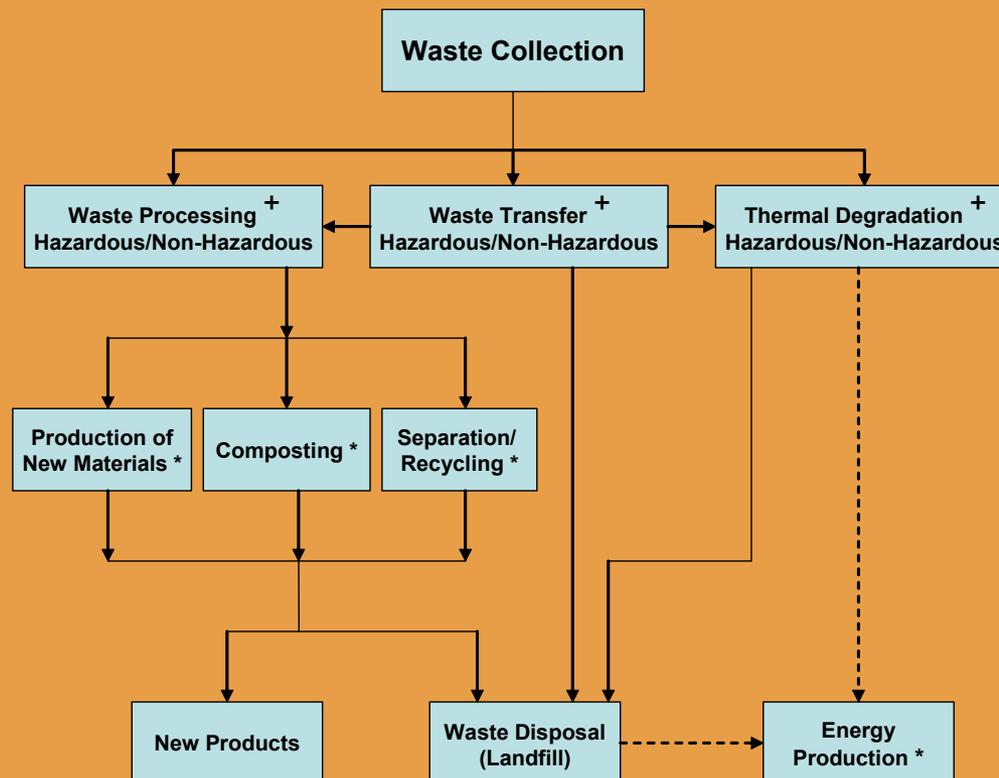
# Study Context

- **Evolving Technologies** – Incineration (thermal degradation) and waste processing, transfer and disposal technologies is evolving. Many of the modern and emerging technologies were not contemplated in the City’s current land use policy framework and zoning standards, nor are there other planning tools that the City may use to regulate such uses.
- **Public Interest** - In recent years, there has been increased public interest and awareness surrounding waste management and energy. The City aims to position itself to address these issues properly through the administration of its obligations and responsibilities.

# Interim Control By-law

- An Interim Control By-law (ICB) was approved on October 12, 2005, to prohibit new and expanded incinerators and waste processing, transfer and disposal facilities (except as is necessarily incidental to any permitted industrial or manufacturing use) for generally all employment lands in the City.
- The ICB provides the opportunity for the City to evaluate its land use planning policies with respect to incineration and waste processing, transfer and disposal facilities.
- The ICB was extended for a second year and will expire on October 11, 2007.
- The ICB cannot be extended any further.

# Inter-Relationship Among Uses / Operations



- + Waste transfer, waste processing and incineration may be conducted within the same facility
- \* Indicates facility could incorporate new or emerging waste management technologies
- - - Indicates potential pathway for some facilities (e.g. waste materials and by-products)

# Classification of Types of Uses

1. Solid Waste (Non-hazardous) Transfer Site
2. Solid Waste (Non-hazardous) Processing Site
3. Waste Transfer and Processing (Hazardous) Site
4. Thermal Degradation (Non-Energy Producing) Site
5. Thermal Degradation (Energy from Waste) Site
6. Power Generation (Fuel Combustion) Site
7. Landfill Site

# Definition of Types of Uses / Operations

1. **Solid Waste (Non-hazardous) Transfer Site\*** - a waste disposal site used for the purpose of transferring waste from one vehicle to another for transport to another waste disposal site. Some limited degree of processing (e.g., compaction) of the waste may take place at a waste transfer site.
  
2. **Solid Waste (Non-hazardous) Processing Site\*** - a waste disposal site that manages or prepares waste for subsequent reuse or disposal. Processing sites typically include material recovery facilities (MRFs) and compost facilities (i.e., for municipal waste).

\* The waste handled at a non-hazardous waste transfer and processing sites is not liquid waste and is not hazardous waste, both as defined by O.Reg. 347. Examples of non-hazardous solid waste include ashes, garbage, refuse, domestic waste, industrial waste and municipal refuse.



# Definition of Types of Uses / Operations

3. **Waste Transfer and Processing (Hazardous) Site** - a waste transfer and/or processing site that handles waste, either solid or liquid, that is defined as “hazardous waste” by O.Reg. 347.
  
4. **Thermal Degradation (Non-Energy Producing) Site** - a waste disposal site designed and operated for the degradation or destruction of waste by thermal means. Thermal degradation includes incineration, gasification, pyrolysis or plasma arc treatment. For the purposes of this category, thermal degradation of waste does not include the generation of electricity. This category would likely only include the thermal degradation of hazardous waste, since hazardous wastes are typically not conducive to energy generation since they involve smaller quantities of waste and a non-steady waste stream.



# Definition of Types of Uses / Operations

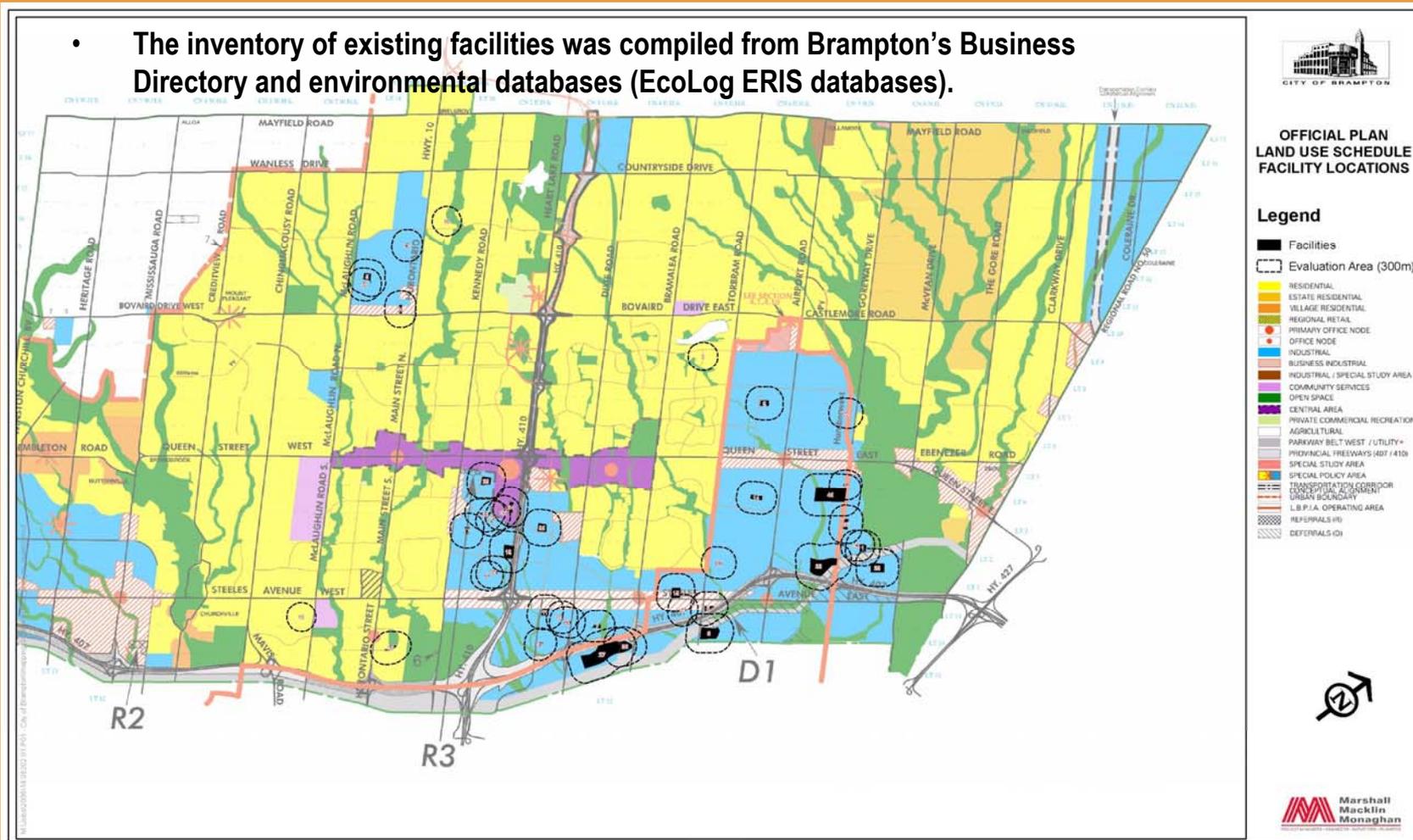
5. **Thermal Degradation (Energy from Waste) Site** - a waste disposal site that is accompanied by the generation of electricity, in which case the waste is used as a fuel source for the production of energy and/or heat. Thermal degradation includes incineration, gasification, pyrolysis or plasma arc treatment.
6. **Power Generation (Fuel Combustion) Site** - a facility that, by means of combustion of a fuel, converts thermal energy to electricity through a series of turbines and generators. Excludes centralized heating plants and localized district energy (may be defined by facility size).
7. **Landfill Site** - a waste disposal site that provides for the disposal of waste on land using engineered methods for the purposes of minimizing environmental and human health hazards (i.e., Closed Britannia Landfill).





# Inventory of Existing Facilities and Land Use

- The inventory of existing facilities was compiled from Brampton's Business Directory and environmental databases (EcoLog ERIS databases).



# Provincial and Federal Regulatory Processes

- There are established Provincial and Federal regulatory processes for the approval of waste management and energy facilities. Generally, the responsibility for waste management resides at the provincial level, with the exception of toxic substances and radioactive material and waste which are Federal issues (*Canadian Environmental Protection Act* and *Nuclear Safety and Control Act* ).
- Recent experience suggests that the City planning policy and approvals process need to:
  - address issues of local interest;
  - reflect/relate to the approval responsibilities of Provincial and Federal agencies; and
  - fulfill the City's responsibilities that are not addressed in the Provincial or Federal levels, without unnecessarily overlapping them.



# Whose Responsibility is it?

Federal Government	Provincial Government	Region of Peel
<p><i>Canadian Environmental Protection Act</i> – regulate toxic substances and trans-border shipping.</p> <p><i>Canadian Environmental Assessment Act</i> – Federal undertakings or certain projects funded or licensed by the Federal Government require an EA to consider environmental effects.</p> <p><i>Nuclear Safety and Control Act</i> – regulates nuclear material and wastes.</p>	<p><i>Planning Act</i> – identifies the supply, efficient use and conservation of energy and the adequate provision and efficient use of waste management systems.</p> <p><i>Ontario Environmental Protection Act</i> – provides for protection, conservation and management of the natural environment and requires a Certificate of Approval (CofA) for most industrial, waste management and energy facilities where there are emissions to air or water.</p> <p><i>Ontario Environmental Assessment Act</i> – major public and designated undertakings require an EA depending on facility thresholds.</p> <p><i>Ontario Water Resources Act, Ontario Safe Drinking Water Act, Ontario Clean Water Act</i> – governs release of contaminants into water.</p> <p><i>Waste Diversion Act</i> – promotes 3R's and waste diversion programs.</p> <p>Numerous Ontario Regulations dealing with landfill sites, waste management, PCB's, air quality and emissions, recycling and composting, contaminant discharge, and effluent monitoring. MOE has policies and guidelines for preparing CofA's.</p>	<p>The <i>Municipal Act</i> identifies waste management as a sphere of Regional jurisdiction.</p> <p>Waste collection, processing and disposal of residential and some small business waste.</p> <p>The management of non-residential waste is generally the responsibility of private waste management companies.</p> <p>Public health and safety promotion and protection.</p>

# Municipal Interest

1. Waste management infrastructure and energy supply need to be considered as part of the broader municipal planning framework as essential infrastructure to be included in municipal plans.
2. The City has a responsibility for orderly distribution of land uses.
3. The City has to ensure compatibility with adjacent land uses.
4. The City has a responsibility to ensure the orderly development of individual sites.
5. The City has a responsibility for public health and safety (e.g., fire prevention and emergency response).

# Proposed Planning Principles

- Planning principles may include:
  - compatibility between existing and proposed land uses (may vary by extent/intensity of the potential hazard);
  - adequate provision and efficient use of waste management systems;
  - protection of public health and safety;
  - protection of the natural environment;
  - provision of adequate transportation system, which directs truck traffic away from residential neighbourhoods;
  - promote efforts to reduce, reuse, recycle and recover energy;
  - promote sustainable local energy production and alternative energy sources that adhere to the planning principles;
  - appropriate site design, through such matters as access, aesthetics, safety, fire protection, protection of natural features/watercourses; and
  - allow for extended producer responsibilities (i.e., material recovery operations).



# Proposed Policy Directions by Operation / Use

Type of Operation/Use		Policy Direction		
		A Permit as-of-right within certain industrial land use designations and zones, subject to performance criteria	B Permit as-of-right within certain industrial land use designations subject to performance criteria. Use would require a site-specific zoning by-law amendment	C Require an Official Plan and Zoning By-law Amendment, subject to full justification
1. Solid Waste (Non Hazardous) Transfer Site	Primary Use	X		
	Accessory Use	X		
	Outside Storage		X	
2. Solid Waste (Non-hazardous) Processing Site	Primary Use	X		
	Accessory Use	X		
	Outside Storage		X	
3. Waste Transfer and Processing (Hazardous) Site		Hazardous Waste Transfer and Processing Sites are not contemplated in the City. An Official Plan and Zoning By-law Amendment would be required subject to full justification. Sites operated by or on behalf of the Region (i.e., Community Recycling Centres) may be subject to Policy Direction B.		
4. Thermal Degradation (Non-Energy Producing) Site	Primary Use			X
	Accessory Use			X
	Outside Storage			X
5. Thermal Degradation (Energy from Waste) Site	Primary Use		X	
	Accessory Use	X		
	Outside Storage		X	
6. Power Generation (Fuel Combustion) Site	Primary Use		X	
	Accessory Use		X	
	Outside Storage		X	
7. Landfill Site		Landfill Sites are not contemplated in the City.		

# Key Planning Issues and Suggested Mitigation / Assessment Measures

Key Planning Issue within City Jurisdiction	Mitigation / Assessment Measures
Traffic (e.g., truck traffic)	Traffic Impact Study
Nuisance Effects (e.g., litter and vermin)	Property Standards
Visual Aesthetics	Land Use Compatibility Analysis, Site Plan Control, Design Guidelines
Physical Containment and Security (e.g., fencing)	Site Plan Control
Fire Prevention and Emergency Response	Fire Safety Consultant Report
Outside Storage	Land Use Compatibility Analysis, Site-Specific Zoning By-law Amendment, Site Plan Control
Key Planning Issue within Others Jurisdiction	Mitigation / Assessment Measures
Noise	Municipal and MOE controlled issue – City may request Noise Study and/or provide comments
Air Quality (e.g., odour, dust and contaminants)	MOE controlled issue – City may request Air Quality Study of MOE and provide comments
Wastewater and Runoff, Surface Water, Landfill Gas (e.g. sub-surface migration)	Municipal and MOE controlled issue - City should require a Wastewater and Runoff Management Plan
Nuclear waste and disposal	Federal Government controlled and regulated



# Implementation

- **Official Plan Amendment**
  - Planning Principles
  - Policy Directions
  - Industrial land use designations
  - Certificates of Approval
  - Planning Applications in Other Jurisdictions
  - Roles and Responsibilities of Other Jurisdictions
- **Zoning By-law Amendment**
  - General provisions
  - Industrial zones
  - Types of Uses/Operation Definitions

# Next Steps

- **Phase 2 : Evaluation and Analysis**
  - Based on the input received today from the Public Open House consultations, we will finalize the Planning Policy Approach (Phase 2) Report which will recommend a City strategy to regulate incineration and waste processing, transfer and disposal uses
  - Consult with waste and energy industry stakeholders and interests.
- **Phase 3: Implementation**
  - Prepare amendments to the Official Plan and Zoning By-law to implement the recommendations of the Planning Policy Approach (Phase 2) Report.
  - Make available the proposed amendments for public review and comment.
  - Hold a Statutory Public Meeting to adopt the proposed amendments (June 2007).
- **Please fill out a comment form.**
- **Thank you for participating!**



# Discussion

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Incineration and Waste Processing Transfer and  
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