



# WELCOME

The Blue Mountains  
Solid Waste Solution  
Workshop No. 2  
January 26, 2008



# Workshop Outline

- Welcome and Introductions
- Results of Survey and Vision
- Overview of Waste Diversion Plan
- Overview of Waste Disposal Options
- Next Steps





The Town of The Blue Mountains

**STUDY AREA**

Project No.: 06-1182-176

Date : May 2007

Figure No.: 1

# Workshop Session

Visioning for the Future  
Options  
How to Chose



# Draft Vision

The Town of The Blue Mountains waste management is a system that is in harmony with its beautiful four season's environment. This system functions and involves people at all levels of business, residential, institutional and municipal and works successfully with full time and seasonal residents. While reducing and diverting the use of waste, the system improves the quality of the area's environment, at a reasonable cost for the Town.

Led by the community as a whole and the municipality -- this system offers significant new directions and opportunities for education and increased public awareness, it is in partnership with other communities, and has followed best practices from sustainable communities worldwide. It is promoting an environmentally-aware community composting and organics program.

# Draft Vision

- **...Is the Vision accurate?**
- **What changes can be made?**



# Goals

- The system will function at all levels (business, residential, institutional, municipal)
- It will include individual responsibility as a major component towards waste reduction
- It will consider a regional solution, waste should be dealt with locally
- Involves partnerships with commercial and private sectors, hold businesses accountable for their waste reduction
- Follows best practice models and creative approaches
- Has created a philosophy within the community about managing waste and resources, and has fostered a sense of accountability whereby people take responsibility for what they produce
- Is as environmentally responsible and safe as possible
- Is accessible and easy to use
- Reduces at the point of generation whenever possible
- It is an efficient and effective system



# Goals Continued

- Community
  - Involve waste re-use and goods exchange days, where people could get in the habit of exchanging used goods
  - Increased public awareness and education
  - Established partnerships with other communities
  - Involve more community composting and organics program
- Economic
  - Provides services at a reasonable cost to the taxpayers
  - Is revenue generating where possible
- Natural Environment
  - Is an environmentally responsible solution



# Goals

- **...Are the goals accurate?**
- **What changes can be made?**



# Survey Results

- 297 respondents

## ***Use of Services***

- Blue/grey box recycling, curbside collection and the deposit return for beer and liquor bottles are most commonly used

## ***Recycling***

- Virtually all of the respondents recycle
- Common materials recycled: glass jars and bottles, cans, plastic containers, paper, and cardboard and boxboard.
- Satisfied with the recycling program
- Wish it accepted more materials.

## ***Backyard Composting***

- Backyard composting is a popular activity in the Town of The Blue Mountains, as more than half of respondents say they do so.



# Survey Results Con'd

## ***Access to Information***

- More information is required on composting and leaf and yard waste.
- Suggestions for improving information included a waste management flyer, the newspaper, and a waste management calendar.

## ***Opinions on Managing and Disposing of Waste***

- Support the principles of reduce, reuse and recycle.
- Food and yard wastes should be composted.
- Support reaching the provincial waste diversion goal of 60%.
- Town should manage its own garbage and oppose managing the waste of others.
- Generally in favour of expanding the Town's landfill, or locate a new one within Town boundaries
- Support among respondents for industry stewardship.





# Waste Diversion Plan



# Introduction

- Ontario's waste diversion goal is 60%
- The Town's current waste diversion rate varies between 27-37%
- The goal of the Waste Diversion Plan is:
  - “To define a system and criteria that will allow the Town to achieve or exceed the Provincial waste diversion target of 60%.”



# Introduction

- In setting this goal, the Town recognizes that additional waste diversion can come from:
  - Strengthening existing waste diversion programs
  - Identifying and developing new waste diversion programs



# Introduction

- The Existing Waste Management System consists of:
  - Curbside waste collection and disposal;
  - Curbside recycling program;
  - Landfill recycling depot; and
  - Back-yard composting program.



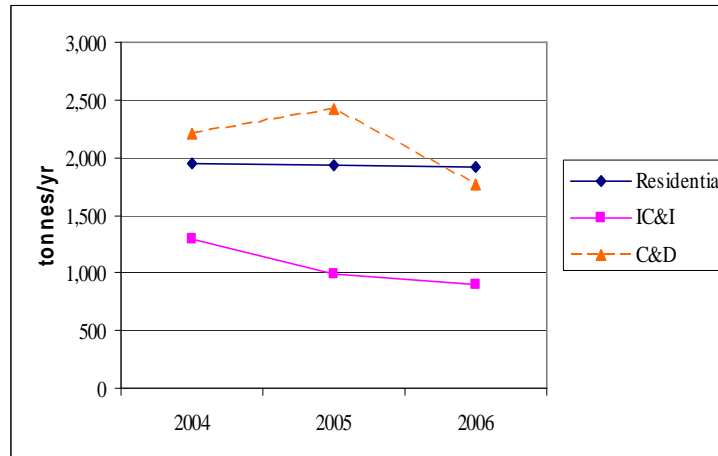
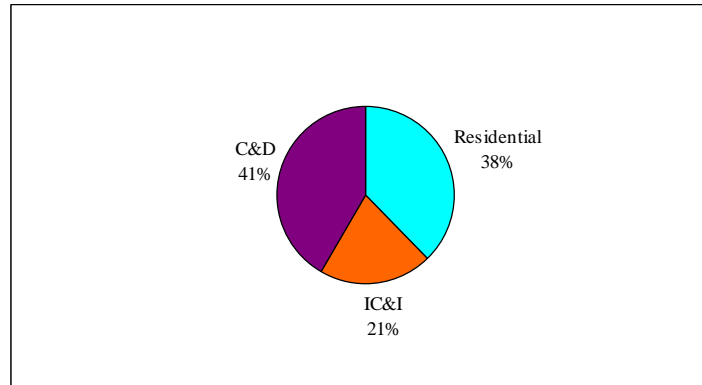
# Introduction

- This Plan was developed by:
  - Consulting with the public;
  - Reviewing the existing waste management system;
  - Reviewing current waste disposal and diversion;
  - Reviewing waste composition and diversion potential;
  - Identifying future waste diversion initiatives;
  - Developing alternative waste diversion systems (i.e. a number of waste diversion initiatives);
  - Evaluating alternative waste diversion systems; and
  - Recommending a waste diversion system.



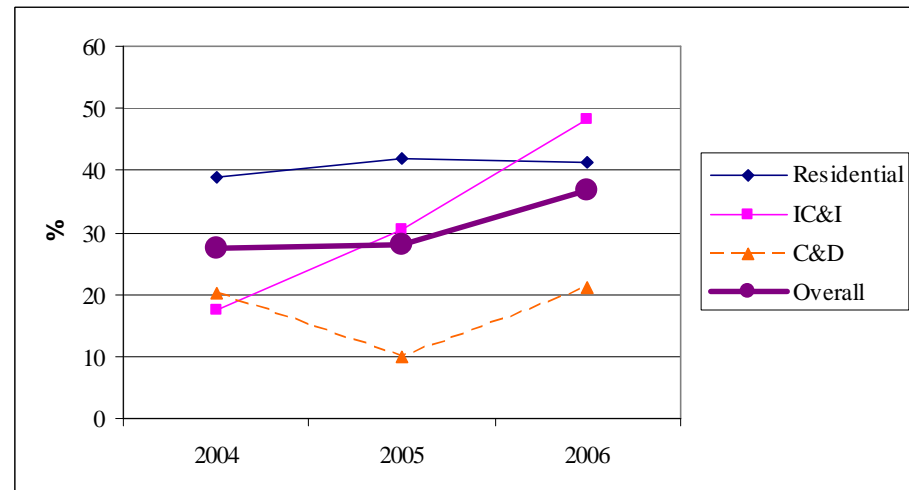
# Existing Waste Management System

- Wastes generated in three sectors.
- IC&I (business) and C&D (construction) have been decreasing and is likely due to:
  - Increased diversion
  - Wastes being managed elsewhere



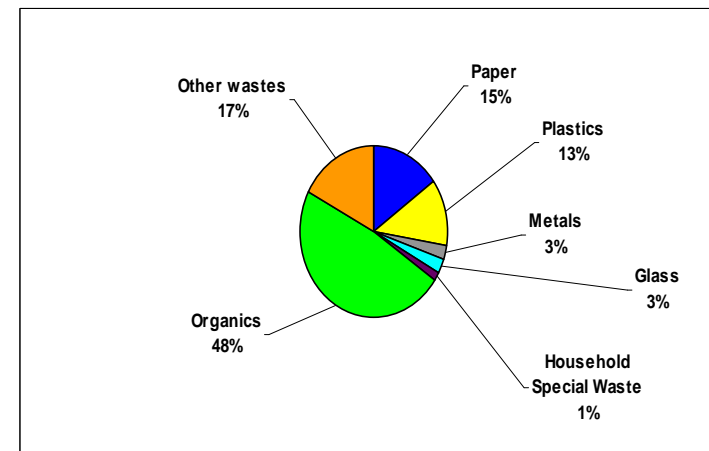
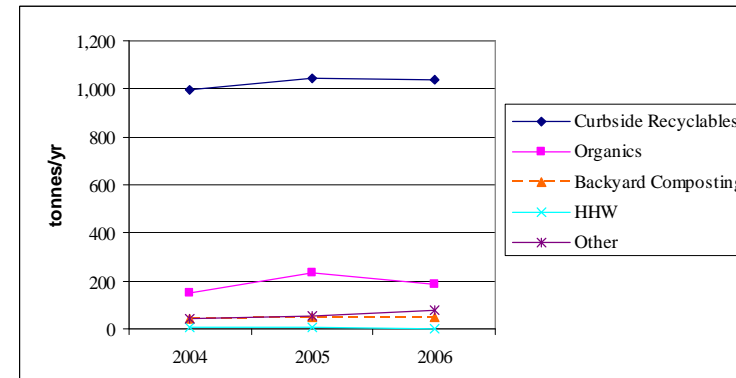
# Existing Waste Management System

- Residential waste diversion steady
- IC&I and C&D increasing
- Opportunities to capture these wastes in enhanced waste diversion programs



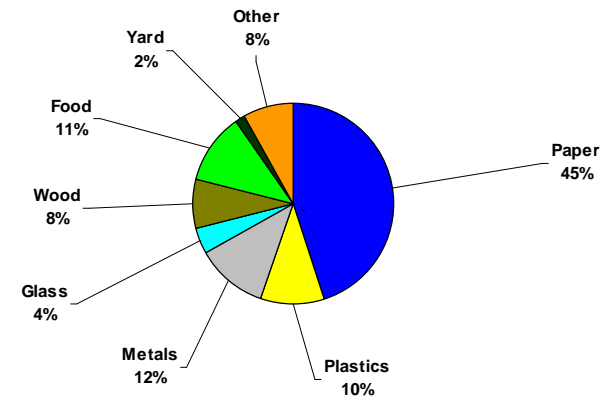
# Waste Composition and Diversion Potential- Residential

- Residential waste diversion about 40% and mostly from Blue Box program
- Significant opportunities to capture additional waste from current garbage stream



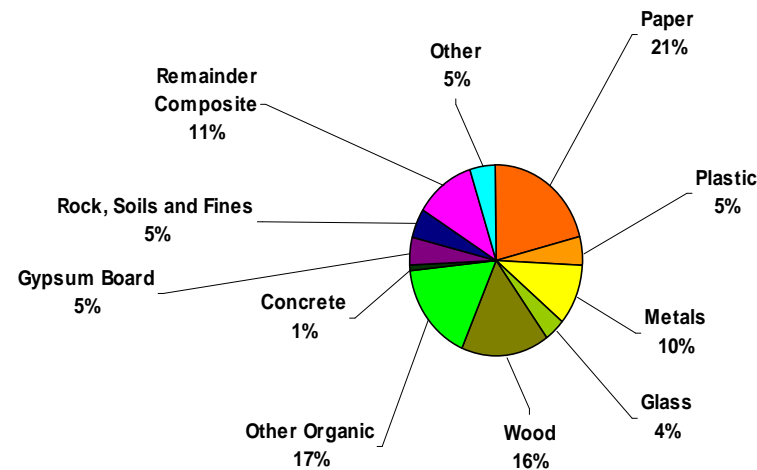
# Waste Composition and Diversion Potential- IC&I

- IC&I waste diversion about 48% and mostly from Blue Box program (much of it was brush)
- Rough estimate of composition
- Opportunities to capture additional waste from current garbage stream (e.g. organic wastes, paper)
- Well developed tourist industry – organic wastes



# Waste Composition and Diversion Potential- C&D

- C&D waste diversion about 21% with all diversion taking place at landfill
- Rough estimate of composition
- Opportunities to capture additional waste from current garbage stream (e.g. organic wastes, paper)
- Well developed tourist industry – organic wastes



# Alternative Waste Management Systems

- Five alternative Systems have been developed and are as follows:
  - System 1 Status Quo;
  - System 2 Existing System with Enhanced Capture;
  - System 3 Enhanced Blue/Grey Box;
  - System 4 Centralized Composting of SSO and Leaf and Yard Wastes; and
  - System 5 Enhanced C&D Recycling;



# System 1 Status Quo – 37%

- Curbside collection of garbage;
- Curbside collection of recyclables (Blue/Grey Box);
- Communications and Education (C&E) program;
- Landfill recycling ( curbside recyclables, scrap wood, scrap metal, concrete blocks and other masonry, appliance, propane tanks, E-waste, HHW, bale wrap);
- Landfill drop-off of leaf and yard and fruit wastes waste for composting; and
- Backyard composting.



# System 2 Existing System with Enhanced Capture– 38%

- System 1
- This System is based on maximizing the existing residential waste management system that is operating in the Town.
- It focuses on the increased capture of Blue/Grey Box recyclables and HHW.
- This diversion would be stimulated through the development of an enhanced and sustained Communications and Education (C&E) program.



# System 3 Enhanced Blue/Grey Box– 39%

- System 1 and 2
- Additional recyclables would be added to the Blue/Grey Box.
- Proposed additional recyclables to be added include paper coffee cups/ice cream containers, other paper, plastic bags, steel aerosol cans, steel paint cans and other metal.
- These recyclables were selected because there are available quantities and end markets.



# System 4 Centralized Composting of SSO and Leaf and Yard Wastes– 49%

- System 1,2 and 3
- Includes the curbside collection and processing of residential Source Separated Organics (SSO) (i.e food and some non-recyclable paper wastes such as tissue)
- The receipt of IC&I SSO and leaf and yard waste at the Town's composting facility.



# System 4 Centralized Composting of SSO and Leaf and Yard Wastes– 49%

- The processing of these wastes could either be done by expanding the Town's windrow composting facility at the Landfill or by delivering these wastes to a third party compost facility, for a transport/tipping fee.
- This System assumes that the Town's composting facility at the Landfill would be expanded to accommodate up to 3,000 tonnes/year of organic waste (i.e. currently has a capacity for 1,000 tonnes/year).



# System 4 Centralized Composting of SSO and Leaf and Yard Wastes– 49%

- **Residential- Curbside Collection**

- The Town would collect SSO and leaf and yard wastes from the curb at prescribed times (e.g. weekly)

- **IC&I- Delivery to Compost Facility**

- It may be possible to attract some of these wastes if the Town's composting facility is expanded.
- The IC&I sector would deliver these wastes to the Town's composting facility for a tipping fee (i.e. per tonne cost).



# System 5 Enhanced C&D Recycling– 64%

- System 1,2, 3 and 4
- There are current diversion programs for C&D wastes that arrive at the Landfill in a segregated fashion.
- At this point there is no infrastructure for mixed loads.
- It is proposed to add a C&D recycling facility at the Landfill to separate mixed loads of C&D wastes into components that can be recycled and to allow further processing of sorted loads of C&D wastes.
- Alternately C&D wastes could be delivered to a third party processor for a tipping fee.



# System 5 Enhanced C&D Recycling– 64%

- This could be combined with increased fees for mixed loads of C&D wastes to stimulate diversion by this sector.
- This could be combined with enforceable measures implemented by the Town (e.g bylaw) to compel the development of a waste diversion plan for new C&D projects and a requirement to recycle a portion of these wastes.



# GHG Emissions by System

Baseline	GHG expressed in eCO2
Baseline – all to landfill	1,940
System 1 – Status Quo	-3,280
System 2	-3,480
System 3	-3,760
System 4	-4,247
System 5	-,5,515

# Estimated Capital and Operating Costs

System	Total Cost	Tonnes Diverted	Diversion Rate	Diversion Increase	Cost Increase
	\$000s	tonnes	%	%	%
1	542	2,670	37	0	0.0
2	546	2,762	38	1	0.7
3	550	2,866	39	3	1.3
4	729	3,523	49	12	34.3
5	807	4,616	64	27	48.9

# Conclusions

- Present waste diversion about 37%
- Provincial goal is 60%
- System 4 will help achieve 50% with a 34.3% increase in costs
- System 5 will help achieve 60% with a 48.9% increase in costs



# Evaluating Alternative Waste Management Systems

	Evaluation Criteria		
	Cost/ Affordability	Environmental Effects	Social Impact and Acceptability
Status-Quo			
Existing System and Enhanced Capture			
Enhanced Blue/Grey Box			
Source Separated Organics Collection			
Enhanced C&D Recycling			

# Residual Waste Disposal

- Even with 60% diversion the municipality will require residual disposal capacity of 120,000 tonnes or approximately 200,000 cubic metres over the next 20 years



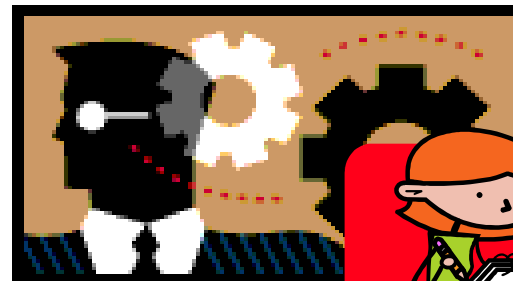
# Waste Disposal Options

- Energy from Waste (EFW)
- Export to another Landfill in Ontario
- New Greenfield Landfill
- Expansion of Existing Site
- Mining of Existing Site



# Provincial Approvals Process

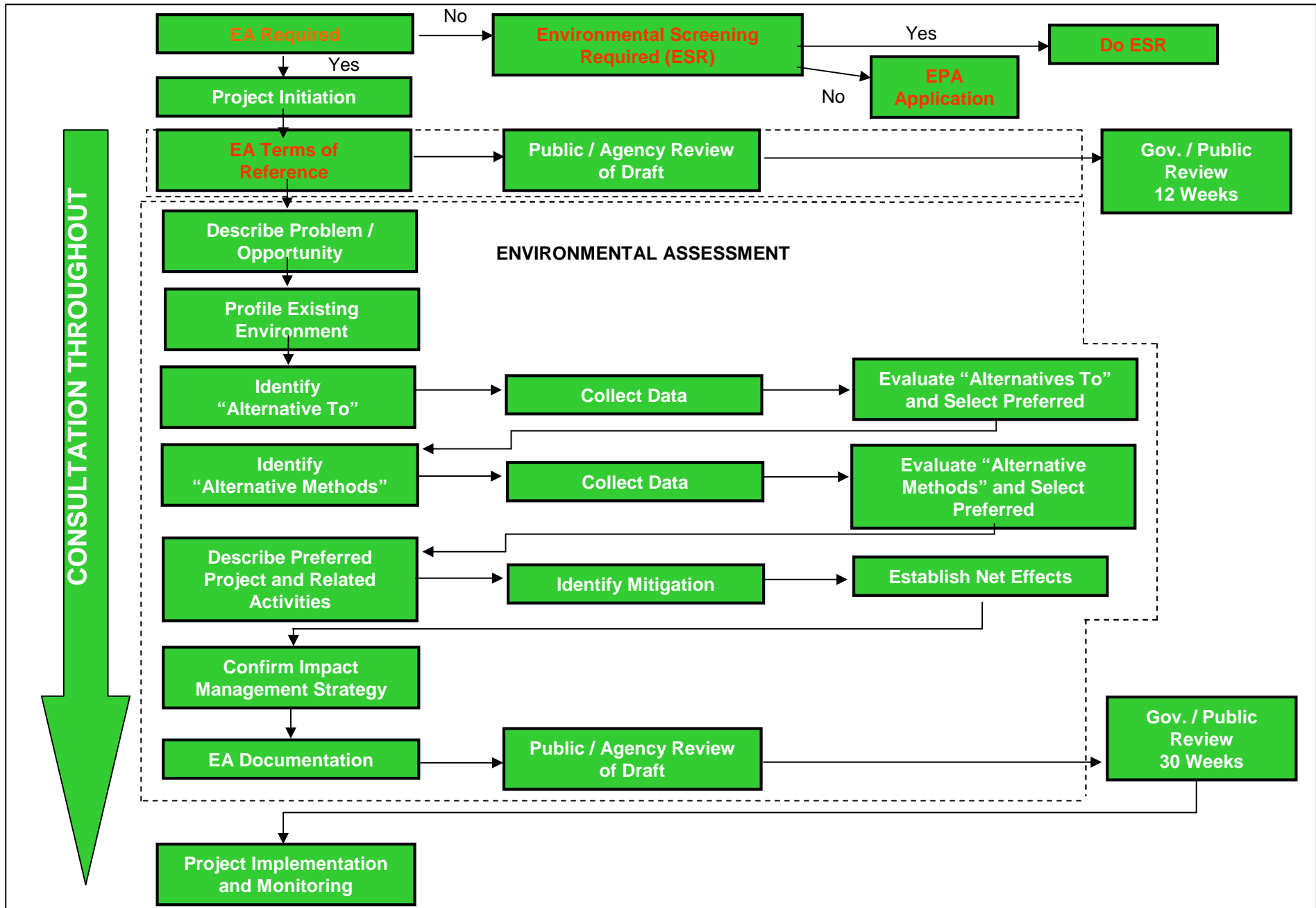
- Environmental Assessment Act (EAA)
- Environmental Protection Act (EPA)



# Environmental Assessment Act

- Individual EA
- Environmental Screening
- No EA





# Individual EA

- New landfills over 100,000 m<sup>3</sup>
- Landfill expansions over 100,000 m<sup>3</sup>
- Thermal facilities with no energy recovery



# Environmental Screening Process

- Landfill expansion less than 100,000 m<sup>3</sup>
- Landfill mining 100,000 cubic metres or less
- Thermal Treatment Site with energy recovery
- Waste processing or transfer stations that ship over 1000 tonnes/day of waste for disposal



# No EAA Requirements

- Organic facilities under 1000 tonnes of residual per day
- Recycling facilities
- Transfer Stations under 1000 tonnes/day



# Evaluating Waste Disposal Options

	Evaluation Criteria		
	Cost/ Affordability	Environmental Effects	Social Impact and Acceptability
Incineration and ash disposal (Energy from Waste)			
Landfill (export)			
Landfill (local)			

# Next Steps

- Incorporate Public Input into Diversion Plan
- Present results to Committee and Council with recommended course of action
- Initiate Pilot Composting Study
- Begin Disposal Option Environmental Work



# Thank-you for Your Input

