



Waste Management Services

Waste and Recycling Collection Service Options - Strategic Discussion

Presentation to Committee of the Whole
March 11, 2010

Objectives

1. How to achieve 65% Waste Diversion
 - Service level options
 - Customer impacts
2. Impact of Waste Diversion Act on Municipalities
 - Extended Producer Responsibility
 - Disposal levies and bans
3. Long Term Disposal Planning
 - Shift from municipal to contracted landfill capacity
 - Update on Alternative Technologies

Waste Management Strategic Focus

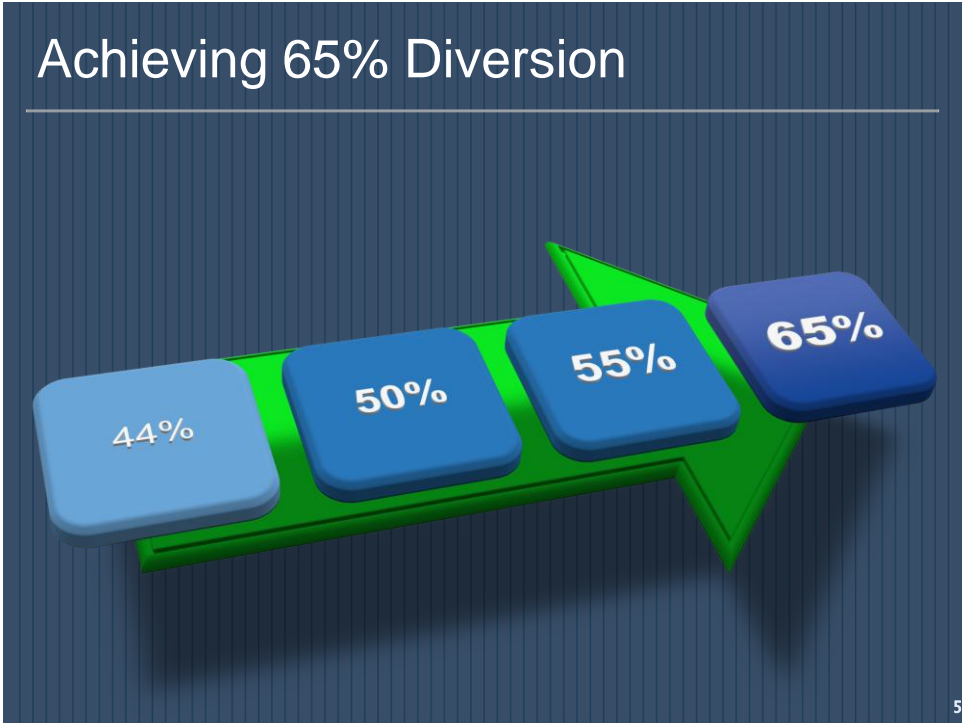


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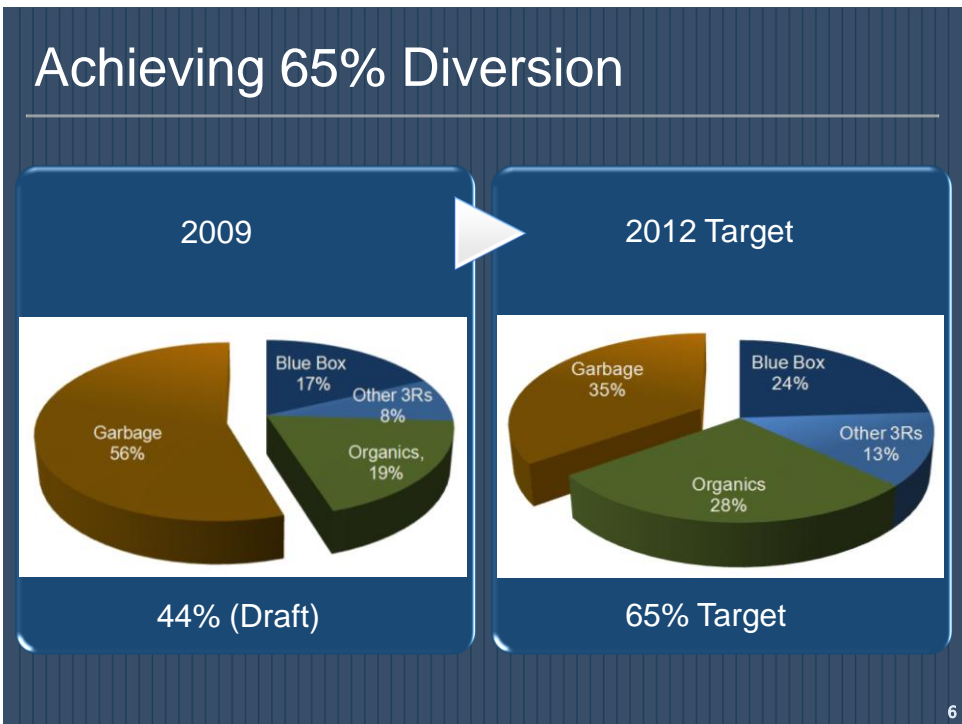
Current Waste Program Costs

Program	Residential Tonnes	Cost/Tonne
Blue/Grey Box (net)	35,400	\$83
Other 3Rs (net)	15,800	\$70
Green Bin/Yard Waste	43,200	\$150
Garbage	113,500	\$188
Total	207,900	\$142

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Achieving 65% Diversion

Getting to 50% Diversion

Program Area	Service Description and Estimated Start Date	% Diversion
Blue/ Grey Box Recycling	<ul style="list-style-type: none"> • Plastics optical sorting technology – 2010 • Add aerosol cans and empty paint cans – 2010 • Public Open Space Recycling – 2010 (pilot) • Multi-residential recycling Region-wide - Mar 2011 	1.5%
Organics	<ul style="list-style-type: none"> • Relaunch Green Bin program - full impact in 2010 • Expand Green Bin program to West Lincoln and Wainfleet - Mar 2011 	3%
Other Diversion Programs	<ul style="list-style-type: none"> • Municipal Hazardous & Special Waste • Electronic Waste • Used Tires 	1.5%

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Achieving 65% Diversion

Municipal Successes

Halton Region

- Every other week garbage collection, weekly Blue Box and Green Bin collection – 61% diversion rate

City of Toronto

- Every other week cart based garbage and recycling, weekly green bin
- Full user pay system
- 59% diversion for curbside serviced homes

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Achieving 65% Diversion

Municipal Successes

Orillia

- Weekly garbage (1 bag/can limit), recycling and green bin collection – 53% diversion

Peel Region

- Weekly garbage (2 bag/can limit), recycling and green bin collection - 49% diversion

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Achieving 65% Diversion

Collection Services RFP

50+% Diversion

Weekly Garbage,
1 bag/can limit
Weekly Green Bin
Alternating Weekly Recycling

60+% Diversion

Every Other Week Garbage,
3 bag/can limit
Weekly Green Bin
Alternating Weekly Recycling

Collection Scenarios

~55% Diversion

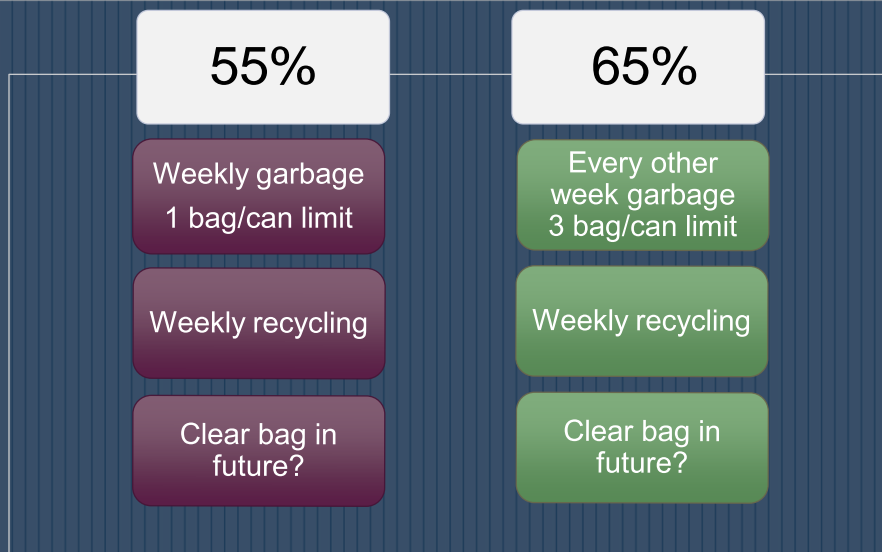
Weekly Garbage,
1 bag/can limit
Weekly Green Bin
Weekly Recycling (both streams)

~ 65+% Diversion

Every Other Week Garbage,
3 bag/can limit
Weekly Green Bin
Weekly Recycling (both streams)

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Achieving 65% Diversion



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Achieving 65% Diversion

Customer Service Options and Impacts

- Weekly recycling, both streams ↑
 - Recycling service to all multi residential buildings ↑
 - Weekly brush collection with yard waste ↑
 - Public Space Recycling ↑
 - Ban on Grass Collection ↓
 - Every other week garbage collection
(3 bag limit) ↓
- OR
- Weekly garbage collection
(1 bag limit)

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Achieving 65% Diversion

Customer Service Options and Impacts

- Bag limit exemptions for diapers ↑
- Same side of road collection – local rural roads ↓
- Free drop off of grass, electronic waste, hazardous waste, used tires at depots ↑

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Achieving 65% Diversion

Next Steps

- Staff Report on collection contract award and recommended service levels
 - Public Works Committee - April 13, 2010
 - Council - April 22, 2010

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Waste Diversion Act

- Under the Act , the Minister of Environment can designate any waste material and require producers to develop a waste diversion plan
- Shifts waste management responsibility from municipalities to producers (brand owners/first importers)

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Waste Diversion Act

Extended Producer Responsibility (EPR)

- Existing producer responsibility programs:
 - Blue Box – Residential Packaging & Printed Paper (partial)
 - Municipal Hazardous & Special Waste (partial)
 - Electronic waste (e.g. computers, monitors and televisions)
 - Used tires
- Minister proposing a shift to full Extended Producer Responsibility (EPR) for a wide range of products and packaging

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Waste Diversion Act

Future EPR Programs

MATERIAL	TIMELINES
IC&I Packaging & Printed Paper	Short Term – 2 yrs
Construction and Demolition Material	
Large and Small Appliances	
Furniture and Mattresses	Medium Term – 3 to 4 yrs
Vehicles	Long Term – 5 yrs
Small Household Items (e.g. toys)	
Branded Organics (e.g. paper towels, diapers)	

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Waste Diversion Act

Blue Box - Packaging & Printed Paper

- Transition from partial to full EPR for residential material
- In 6 to 10 years – 100% industry funded and controlled program
- Expanded to industrial, commercial and institutional (IC&I) sectors
- Opportunity for Niagara to become a regional service provider for producers
- Increased funding for higher levels of service

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Waste Diversion Act

Disposal Bans and Levies

- To drive diversion Ministry of Environment proposing:
 - Ban of designated materials from disposal
 - Disposal levies (estimated \$10/tonne) to increase cost of disposal relative to diversion
 - Levy revenue to fund diversion related activities

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Waste Diversion Act

Implications for Municipalities

Pros

- Lower costs for Blue Box program, Municipal Hazardous and Special Waste, Tires and Electronics programs
- Opportunity to be Blue Box and MHSW service providers
- Increased convenience and accessibility through return to retailer options, funding for more municipal drop off depots



Cons

- Loss of control over Blue Box system
- Uncertainty about future waste quantities under municipal control
- Higher cost of disposal (levy)



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Long Term Disposal Planning

Shift from Regional to Private Sector Capacity

- In 2007, Council approved strategy to shift tonnage to Walker landfill as regional sites close
- Three regional landfills remain open
 - Bridge St. Landfill estimated closure Dec 2010
 - Humberstone has capacity until 2016
 - Niagara Rd 12 Landfill - 45 years of capacity
- First tonnes to Walker in March 2011
- Continue to monitor alternative disposal technologies

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Long Term Disposal Planning

Alternative Disposal Technologies

- Mass Burn
- Refuse Derived Fuel
- Gasification
- Steam Reformation
- Mechanical Biological Treatment

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Long Term Disposal Planning

Status of Alternative Technologies

Facility Type	Technology	Vendor	Municipality	Tonnes per Year (tpy)
Full Scale	Gasification	Algonquin Power	Peel Region	120,000 tpy
	Refuse Derived Fuel	Dongara	York Region	100,000 tpy
Demo	Plasma Gasification	Plasco	Ottawa	15,000 tpy
	Steam Reformation	Elementa	Sault St. Marie	750 tpy
Planned	Mass Burn	Covanta	Durham/ York	140,000 tpy
	Plasma Gasification	Plasco	Ottawa	150,000 tpy
	Steam Reformation	Elementa	Sault St. Marie	35,000 tpy
	Mechanical Biological Treatment	RFP Issued	Toronto	100,000 tpy

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Long Term Disposal Planning

Factors Affecting Alternative Technologies

- Cost of landfill capacity
- Value of energy outputs
 - Electricity
 - Heat
- Predictability of future waste tonnage

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Long Term Disposal Planning

Long Term Waste Management Strategic Plan

New long term strategic plan can be developed following:

- Selection of collection service levels
- Amendments to Waste Diversion Act:
 - New EPR program schedule confirmed
 - Municipal service delivery role clarified
- Revisions to municipal waste tonnage projections

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Next Steps

- Decide on collection service levels & award new collection contract (April 2010)
- Position Niagara as a potential regional Blue Box and MHSW service provider
- Continue to monitor alternative disposal technologies
- Report back to Council on process for development of long term strategic plan

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