



# 12<sup>TH</sup> CANADIAN POLLUTION PREVENTION ROUNDTABLE

June 10-12, 2008  
Edmonton, Alberta

Crowne Plaza- Chateau Lacombe





## **3.2 “Calgary Materials Exchange - Waste Measurement Toolkit”**

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# Waste Measurement Toolkit Presentation

June 11, 2008

Canadian Pollution Prevention Roundtable

# Clean Calgary Association

Empowers Calgarians to create healthy homes and communities by providing environmental education, products and services

[www.cleancalgary.org](http://www.cleancalgary.org)



# Calgary Materials Exchange

Help companies to reduce, reuse and recycle  
operational waste

[www.cmex.ca](http://www.cmex.ca)



# Waste Measurement Toolkit

- Provides an overview to quantify waste and recycling rates and composition
- Enables measurement of performance and results relating to waste reduction
- Funded by:



# Waste Measurement Toolkit

## Sections:

- Information
- Forms/ Resources
- Data Entry/ Report

# Forms / Resources



Waste / Garbage			
Record bin(s) volume	Bin 1 ____	Bin 2 ____	Bin 3 ____ Bin 4 ____
Total Volume of Bins			Disposal Company
# of Pick-ups per week			How Full is Bin at time of assessment
Waste Bin Cost			Account #
Shared Bin?			% that is company's waste
			%
Category	Material Type	Examples	Material in bin
Garbage	a. Mixed Garbage (fill in a or b-e, not both)	<i>Tip: Leave cells blank if no waste</i>	
	b. Washroom waste	Paper towels	
	c. Staff room / Cafeteria & lunch room / kitchen	Wrappers, takeout containers, food waste	
	d. Desk garbage waste	Pens, tissue, chip bags, food	
	e. Shipping & Receiving waste	Warehouse -paper, organics, plastic, sweepings	
	f. Restaurant / Cafe / Food Court		
	g. Retail clothing store		
	h. Other		
Wood	a. Mixed Garbage (fill in a or b-e, not both)	<i>Tip: Leave cells blank if no waste</i>	
	b. Pallets	Pallets / skids / broken crates	
	c. Dimensional Lumber	Cut-offs, ends, scrap wood, shavings	

Plus...Plastic, Paper, Metals, Organics, C&D, Glass, Miscellaneous items

# Forms / Resources



Recyclable and Reuse Materials				
<b>PAPER / CARDBOARD</b>				
<b>Material Type</b>	<b>Bin size</b>		<b># of pickups per week</b>	<b>Company</b>
Compacted Cardboard	yd <sup>3</sup>			
Loose Cardboard	yd <sup>3</sup>			
Paper to be shredded	yd <sup>3</sup>			
Mixed paper	yd <sup>3</sup>			
<b>Individual Items</b>			<b># per month</b>	
Baled Cardboard (60"x30"x43")		# of bales		
Phonebooks (collected in 1.5 yd <sup>3</sup> box)		# of boxes		
<b>BEVERAGE CONTAINERS</b>				
<b>Material Type</b>	<b>Examples</b>	<b>Bin size</b>	<b># of pickups per week</b>	<b>Company</b>
<b>Individual Items</b>				
Beverage Containers	Mixed cans, glass, tetra pack	yd <sup>3</sup>		
<b>ELECTRONICS</b>				
<b>Material Type</b>		<b># per month</b>		<b>Company</b>
<b>Individual Items</b>				
Monitor (box)				
Computer, CPU, hard drive				

# Waste Example



# Waste Example



← 4 yd<sup>3</sup>



→ compactor

# Waste Example





# Recyclables Example



# Recyclables Example



**Measuring baseline waste production and recycling performance**

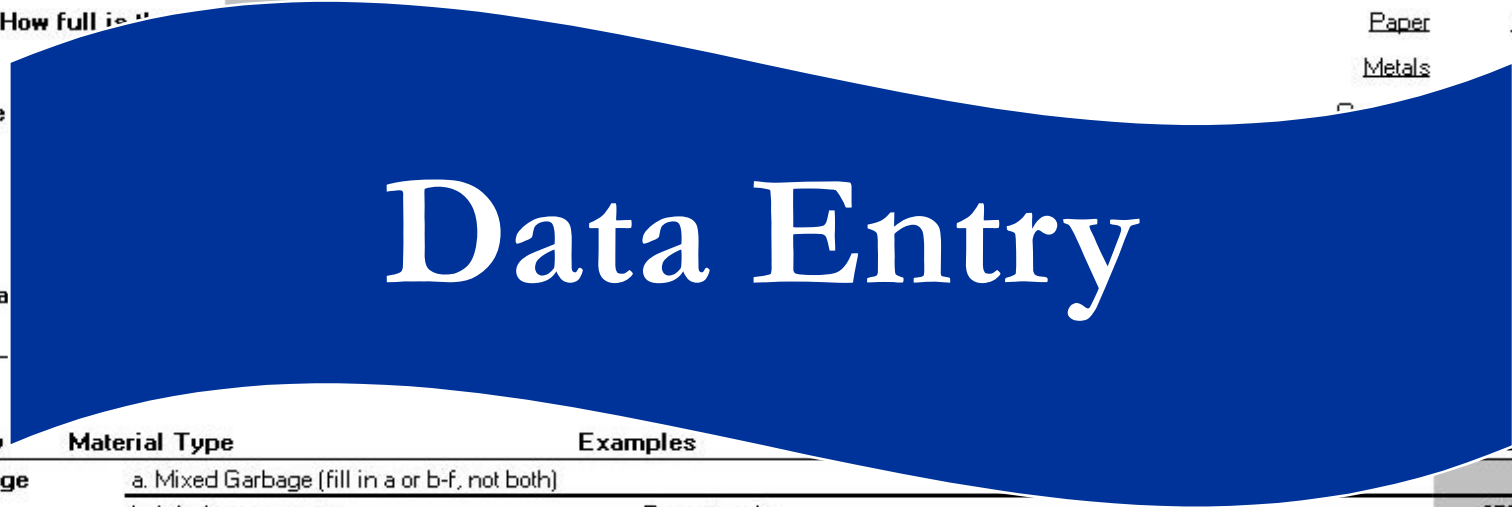
Company Bentall Building  
 Assessment date: \_\_\_\_\_ (Format: 17-Oct-2007) **Don't forget to enter the date!**  
 Assessment conducted by: \_\_\_\_\_

**Waste Results**

**Waste / Garbage**

Record bin size (yd<sup>3</sup>) → Bin.1 Bin.2 Bin.3 Bin.4  
 Total bin volume (yd<sup>3</sup>) 4 yd<sup>3</sup> 4  
 Pick-ups per week 3  
 How full is it? \_\_\_\_\_

Estimated Annual Weight (kg)  
 Wood  
 Plastics  
 Paper 2,582  
 Metals



Garbage  
When garba

Category	Material Type	Examples	% in bin	Weekly Weight (kg)
Garbage	a. Mixed Garbage (fill in a or b-f, not both)			
	b. Washroom waste	Paper towels	25%	102
	c. Lunchroom	Wrappers, takeout containers, food waste	17%	151
	d. Desk garbage waste / office waste	Pens, tissue, chip bags, food	52%	186
	h. Other			
Paper	a. Mixed Paper (fill in a or b-g, not both)			
	b. Cardboard	Boxes, waxed cardboard		
	c. Office paper	Computer / printer paper		
	d. Newspaper			
	e. Packaging paper			
	f. Phonebooks, catalogues, magazines			
	g. Mixed	Scrap paper, post-it-notes, light cardboard, file folders, envelopes	6%	50

**Diverted Materials (Recyclables / reuse )**

# Recyclable Results

**Estimated Annual Weight (kg)**

<u>Wood</u>		<u>Electronics</u>	873
<u>Paper</u>	9,861	<u>Elastic</u>	
<u>Metal</u>		<u>Organics</u>	
<u>Beverage containers</u>	4,124	<u>Miscellaneous</u>	123
<u>Glass</u>			
<b>Total</b>			<b>14,980 kg</b>

**PAPER** Select blank cell to add additional bins

Material Type	Bin Size (yd <sup>3</sup> )	# pickups per week	Weight (kg)
Loose Cardboard (bin1)	4	1	190
Compacted Cardboard			
Paper for shredding			
Mixed office paper			
Newspaper			
subtotal			<b>190</b> per week

**BEVERAGE CONTAINERS**

Material type	Bin Size (yd <sup>3</sup> )	# pickups per week	Weight (kg)
Mixed beverage containers	1.5	1	79

**ELECTRONICS**

Material Type	<b>Tip</b>	# per month	Weight (kg)
<b>Individual</b> Monitor (box)		5	73
<b>items</b> Monitor (flat 17")			

**MISCELLANEOUS**

Material Type	Bin Size (yd <sup>3</sup> )	# pickups per week	Weight (kg)
Rubber		1	
<b>Individual</b> Click cells below to show drop down		<b># per month</b>	<b>Weight (kg)</b> <input style="width: 50px;" type="text"/>
<b>items</b> Toner cartridges	10	# of items per month	122.73

# Report – Baseline Summary



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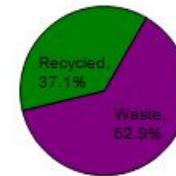


## Waste Measurement Toolkit Summary: Assessment 1

Company: **Bentall Building** Date: **25-May-08**

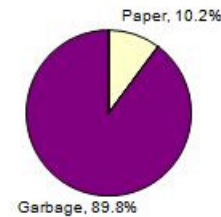
### Waste & Recycled Material Annual Total

	Weight	Percent
Waste	25,423	63.0%
Recycled	14,980	37.1%
<b>Total</b>	<b>40,404</b>	<b>kg</b>



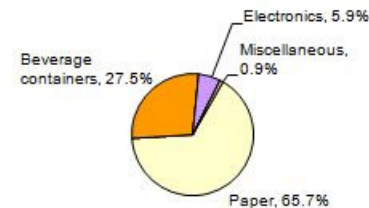
### Waste Material Breakdown - Annual

	Weight	Percent
Wood		
Plastics		
Paper	2,582	10.2%
Metals		
Organics		
C&D		
Glass		
Garbage	22,842	89.9%
Miscellaneous		
<b>Total</b>	<b>25,423</b>	<b>kg</b>

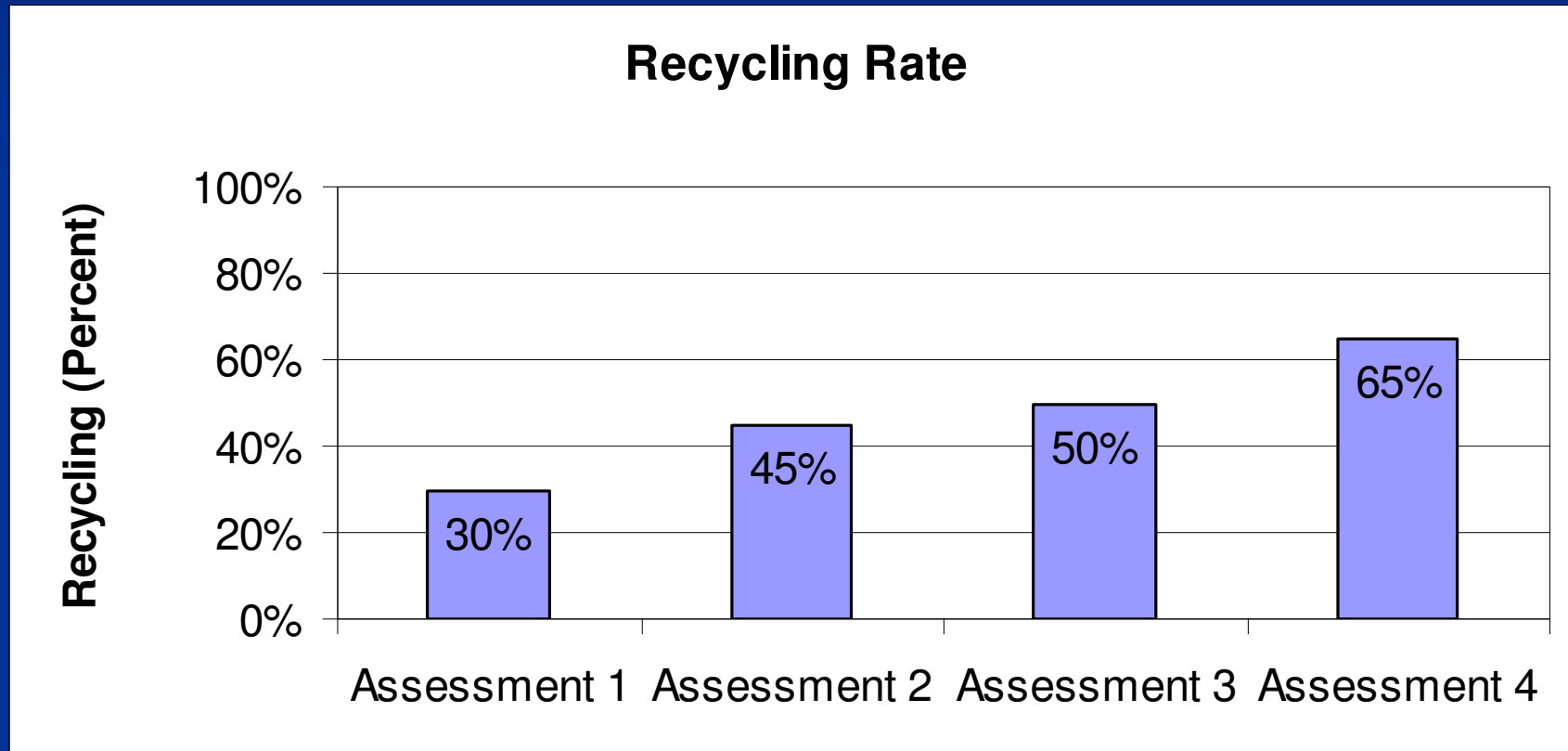


### Recycled Material Breakdown - Annual

	Weight	Percent
Wood		
Paper	9,861	65.9%
Metal		
Beverage containers	4,124	27.6%
Glass		
Electronics	873	5.9%
Plastic		
Organics		
Miscellaneous	123	0.9%
<b>Total</b>	<b>14,980</b>	<b>kg</b>



# Report - Recycling Trend



# Start Using the Toolkit to...

- Quantify waste and recycling
- Report progress to management and tenants
- Select effective waste reduction initiatives to implement or enhance

The Waste Measurement Toolkit is another method to get results on building performance

# Thank You!



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