

**SOLID NON-HAZARDOUS WASTE AUDIT**

**MAY 2011-APRIL 2012**

**UNIVERSITY OF TORONTO  
TORONTO, ONTARIO**

**ENVIROVISION INC.**

**AUGUST 2012**

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## 1.0 INTRODUCTION

The University of Toronto (“UofT”) is a large multi-building, multi-facility community that has approximately 60 thousand students, staff and faculty occupying several major city blocks with over 140 buildings that generate waste and recycling materials. This study audits representative samples of waste from various buildings and facility types on campus and, as much as possible, compares the findings to last year’s study. At the same time it audits new areas to better understand the composition and quantities of the solid waste generated.

### 2.3 Purpose

The purpose of the solid non-hazardous waste audit is described as follows:

- to comply with the Ministry of the Environment’s (“MOE”) 3R’s Regulation, specifically Part X of Ontario Regulation (“O. Reg.”) 102/94 – Waste Audits and Waste Reduction Workplans (“O. Reg. 102/94”) which requires educational institutions to conduct waste audits and prepare waste reduction plans on an annual basis,
- to determine the current annual waste diversion rates for UofT resulting from existing waste reduction, reuse, and recycling programs,
- to identify and quantify the composition and point of generation of waste at UofT, and
- to identify any additional opportunities for waste reduction and diversion, which may exist at UofT.

### 1.2 Scope

Generally stated, the scope of work for this project was as follows:

- to collect data pertaining to the waste collection practices and one day waste audit data of select buildings at UofT, and select compactor scale waste loads audited at a transfer station;
- to determine the total quantity of waste diverted from landfill through current reduction, reuse, and recycling initiatives by auditing files provided: and
- to complete a report on the waste audit’s findings and prepare a Waste Audit Summary and a Waste Reduction Action Plan.

## **2.0 WASTE AUDIT RESULTS**

### **2.3 Methodology**

Waste categories were established prior to the audit based on the MOE's requirements for source separation at Educational Institutions:

1. Aluminum food or beverage cans (including cans made primarily of aluminum).
2. Cardboard (corrugated).
3. Fine paper.
4. Glass bottles and jars for food or beverages.
5. Newsprint.
6. Steel food or beverage cans (including cans made primarily of steel).

In coordination with the waste management supervisor and caretaking department, 24 hr samples of bagged waste were collected the day before the audit. Each area of the building was designated with a different colour tab. The waste was audited by two qualified staff persons using containers to keep materials separate, a conversion of quantity counts to weight for containers, a portable scale, and relevant safety gear. Source separated bags of mixed containers were also audited to verify the volume to weight conversions. Extra safety supervision was provided on the site during the audit of laboratories. The audit was performed outdoors from February 6 to 17, 2012; therefore, Envirovision considers that this constitutes an indicative sample of the activities and waste types generated during the school period.

The total waste generated by UofT on any given day is approximately 6,369 kg. The total waste sampled during the spring of 2012 was 576.75 kg, which is approximately 10% of the total waste generated on a typical day.

Compactor loads of waste were audited at the Unwin Transfer Station located in Toronto, Ontario. Emphasis was placed on qualitative observation focusing on recyclable materials, large and special items that were perhaps overlooked at the 24 hours sample level in the buildings. Specifically, observations were made for furniture; electronics scrap metals, construction and contractor waste, large plastic items and source separated recyclables that should not have been thrown in the garbage by staff.

Annual tonnages supplied by the UofT were re-checked to the best of our ability. Spot check weights were also collected for bags, mixed containers, and recycling depots were spot checked to determine the amount of contamination in the various compartments (mixed containers, mixed paper,

waste and coffee cups).

## 2.2 Sources of Waste Generation

A review of UofT activities identified the following sources of waste generation:

- Office & Administration
- Washrooms
- Cafeteria
- Laboratories
- Classrooms, hallways, and public areas
- Washrooms

## 2.3 Waste Quantities, Composition and Distribution

The waste type, composition and distribution at UofT were determined by performing an audit of all solid non-hazardous waste generated at the facility over a twenty four hour period and with select off site auditing of compactor scale waste loads. The total waste quantities diverted from landfill through current reduction and recycling initiatives and the total waste shipped to landfill from May 2011 to April 2012 were provided by UofT.

The solid waste generated at UofT's St. George Campus was divided in the following generation areas:

Name	Address	Office & Administration	Hallways, Classrooms, Public Spaces	Washrooms	Food Services / Cafeteria	Labs	Other
Earth Sciences Centre (ES)	33 Willcocks Street Toronto M5S 3B3 UofT Building#: 62		x	x		x	
Lash Miller Chemical Laboratories (LM)	80 St. George Street, Toronto, M5S 3H6 UofT Building#: 73		x	x		x	
Ramsay Wright Laboratories (RW)	25 Harbord Street Toronto, M5S 3G5 UofT Building#: 72		x	x	x	x	
Woodsworth Collage (WW)	119 St. George Street, Toronto, M5S 1A9 UofT Building#: 38	x	x	x			
Rotman School of Management (RT)	105 St. George Street Toronto, M5S 3E6 UofT Building#: 134	x	x		x		

Name	Address	Office & Administration	Hallways, Classrooms, Public Spaces	Washrooms	Food Services / Cafeteria	Labs	Other
University College (UC)	15 King's College Circle, Toronto, M5S 3H7 UofT Building#: 1	x	x		x		
Rosebrugh Building (RS)	164 College Street Toronto, M5S 3G9 UofT Building#: 20	x	x	x			
Lassonde Mining Building (MB)	170 College Street Toronto, M5S 3E3 UofT Building#:7	x	x	x		x	
Haultain Building (HA)	170 College Street Toronto, M5S 3E3 UofT Building#: 24	x	x			x	
Leslie L. Dan Pharmacy Building (PB)	144 College Street Toronto, M5S 3M2 UofT Building#: 161	x	x			x	
Tanz Neuroscience Building (TZ)	6 Queen's Park Crescent West Toronto M5S 3H2, UofT Building#: 11	x	x	x		x	
FitzGerald Building (FG)	150 College Street Toronto, M5S 1A8 UofT Building#: 25	x	x	x		x	
Galbraith Building (GB)	35 St. George Street Toronto, M5S 1A4 UofT Building#: 70		x	x			
Sandford Fleming Building (SF)	10 King's College Road Toronto, M5S 3G4 UofT Building#: 9	x	x	x	x	x	
Wallberg Building (WB)	184-200 College Street, Toronto M56 3E5 UofT Building#: 8		x	x		x	x

One of the key aspects of *O. Reg. 102/94* is for waste generators to get a good understanding of the areas of their operation that generate the most waste, how it is generated and what the composition is. In so doing, one can be aware of where to focus the recycling and waste reduction efforts.

During the one-day waste audit conducted in 2012, the areas generating most of the waste by weight are as follow:

Name	Address	Quantity (kilogram)	Quantity (%)
Earth Sciences Centre (ES)	33 Willcocks Street Toronto M5S 3B3 UofT Building#: 62	18.50	3.20
Lash Miller Chemical Laboratories (LM)	80 St. George Street, Toronto, M5S 3H6 UofT Building#: 73	10.5	1.82

<b>Name</b>	<b>Address</b>	<b>Quantity (kilogram)</b>	<b>Quantity (%)</b>
Ramsay Wright Laboratories (RW)	25 Harbord Street Toronto, M5S 3G5 UofT Building#: 72	26.9	4.66
Woodsworth Collage (WW)	119 St. George Street, Toronto, M5S 1A9 UofT Building#: 38	15.35	2.66
Rotman School of Management (RT)	105 St. George Street Toronto, M5S 3E6 UofT Building#: 134	113.15	19.60
University College (UC)	15 King's College Circle, Toronto, M5S 3H7 UofT Building#: 1	31.05	5.38
Rosebrugh Building (RS)	164 College Street Toronto, M5S 3G9 UofT Building#: 20	17.95	3.11
Lassonde Mining Building (MB)	170 College Street Toronto, M5S 3E3 UofT Building#:7	29.70	5.15
Haultain Building (HA)	170 College Street Toronto, M5S 3E3 UofT Building#: 24	16.05	2.78
Leslie L. Dan Pharmacy Building (PB)	144 College Street Toronto, M5S 3M2 UofT Building#: 161	27.15	4.70
Tanz Neuroscience Building (TZ)	6 Queen's Park Crescent West Toronto M5S 3H2, UofT Building#: 11	36.90	6.39
FitzGerald Building (FG)	150 College Street Toronto, M5S 1A8 UofT Building#: 25	27.25	4.72
Galbraith Building (GB)	35 St. George Street Toronto, M5S 1A4 UofT Building#: 70	61.30	10.62
Sandford Fleming Building (SF)	10 King's College Road Toronto, M5S 3G4 UofT Building#: 9	99.75	17.28
Wallberg Building (WB)	184-200 College Street, Toronto M56 3E5 UofT Building#: 8	20.70	3.59
Outdoor Multi Sort Depots	---	25.05	4.34
<b>Total</b>		<b>577.25</b>	<b>100%</b>

During the waste audit, a total of approximately 576.75 kilograms of waste was audited. Spread sheets showing the individual waste categories and the weight of each category generated from all areas of UofT are included in Appendix 1.



Based on the total amount of waste sorted, the areas of the buildings audited within UofT generating the greatest quantities of waste were:

Name	Address	Office & Administration %	Hallways, Classrooms, Public Spaces %	Washrooms %	Food Services / Cafeteria %	Labs %	Other %
Earth Sciences Centre (ES)	33 Willcocks Street Toronto M5S 3B3 UofT Building#: 62					50.3	
Lash Miller Chemical Laboratories (LM)	80 St. George Street, Toronto, M5S 3H6 UofT Building#: 73		45.7				
Ramsay Wright Laboratories (RW)	25 Harbord Street Toronto, M5S 3G5 UofT Building#: 72					49.3	
Woodsworth Collage (WW)	119 St. George Street, Toronto, M5S 1A9 UofT Building#: 38		45.6				
Rotman School of Management (RT)	105 St. George Street Toronto, M5S 3E6 UofT Building#: 134				45.1		
University College (UC)	15 King's College Circle, Toronto, M5S 3H7 UofT Building#: 1		47.3				
Rosebrugh Building (RS)	164 College Street Toronto, M5S 3G9 UofT Building#: 20		44.0				
Lassonde Mining Building (MB)	170 College Street Toronto, M5S 3E3 UofT Building#:7					33.2	
Haultain Building (HA)	170 College Street Toronto, M5S 3E3 UofT Building#: 24					46.1	
Leslie L. Dan Pharmacy Building (PB)	144 College Street Toronto, M5S 3M2 UofT Building#: 161		53.4				
Tanz Neuroscience Building (TZ)	6 Queen's Park Crescent West Toronto M5S 3H2, UofT Building#: 11					29.8	
FitzGerald Building (FG)	150 College Street Toronto, M5S 1A8 UofT Building#: 25		41.3				
Galbraith Building (GB)	35 St. George Street Toronto, M5S 1A4 UofT Building#: 70		70.6				

<b>Name</b>	<b>Address</b>	<b>Office &amp; Administration %</b>	<b>Hallways, Classrooms, Public Spaces %</b>	<b>Washrooms %</b>	<b>Food Services / Cafeteria %</b>	<b>Labs %</b>	<b>Other %</b>
Sandford Fleming Building (SF)	10 King's College Road Toronto, M5S 3G4 UofT Building#: 9		28.5				
Wallberg Building (WB)	184-200 College Street, Toronto M5S 3E5 UofT Building#: 8		51.2				

### 3.0 DIVERSION PROGRAMS & WASTE MANAGEMENT SYSTEMS

#### 3.1 Waste Diversion Programs

The following 3Rs programs have been implemented at UofT to Reduce, Reuse and Recycle the following materials:

<b>Reduce</b>	Lug-A-Mug Program Photocopier Double Sided Phone Books Labware Pails No water bottle sales on campus	
<b>Reuse</b>	Swap shop – In & Out Printer Toner Cartridges Wood Pallets/Skids	
<b>Recycle</b>	Mixed Paper Confidential shredding Paper towels Cardboard Mixed containers Metals  Woods Yard Wastes Animal Beddings Asphalt Stone pavers & screenings Soil Concrete	Electronic wastes Mixed Plastics Lab glass and plastics Mattresses Tires Canada Fibres Recycle Program Clean Fill Catch basins Batteries Fluorescent bulbs Polystyrene Organics Coffee cups

The amount of waste diverted from landfill due to the above initiatives is presented in Table 1 entitled “*Waste Diversion Summary (May 2011 - April 2012)*” and found on the following page.

Table 1: Waste Diversion Summary (May 2011-April 2012)

<b>Reduce/Reuse/Recycle Programs</b>	<b>Annual Weight (MT)</b>
mixed paper	579.1
paper towels	119.0
misc. paper	1.5
Cardboard	277.1
Shredding est.	130.6
Metal	75.0
Wood	119.0
Yard waste	52.1
Yard waste from construction projects	6.0
Animal bedding	106.4
Soil & plant p/u	29.8
Plant & tree use, composting	14.0
grass & wood mulch	48.0
asphalt	300.0
stone, pavers & screening	30.0
soil from construction projects	300.0
concrete from construction	220.0
clean fill	15.0
catch basin material	75.0
Swap Shop - Out, including pad	17.7
In Swap	12.0
pallets - recycled & reused	14.6
batteries	2.9
fluorescents	7.9
Polystyrene	4.1
organics	285.1
Aero. Misc. pick ups	5.4
89 Chestnut Organics	585.0
89 Chestnut B & C	190.8
M. Hall B & C	23.5
bottles & cans etc.	170.9
Coffee cups	11.0
Amber bottles	3.0
computers, equipment, disks, cartridges	34.5
mixed plastics	9.2
Lab glass & plastic est.	7.0
Canada Fibres Compactor Recycle Program	156.4
Lug-A-Mug Program (Reduction)	73.9
Photocopier Double-Sided Printing (Reduction)	32.2
Phone Book (Reduction)	2.7
Lab Glass Pail Reduction	9.4
<b>3Rs Sub Total</b>	<b>4,156.9</b>

### 3.2 Waste Disposal Systems

Approximately 1,655.9 tonnes of general waste were generated by UofT from May 2011 to April 2012.

### 3.3 Current Annual Diversion Rate

Waste Diversion Rate is the percentage of waste materials that a facility diverts from landfill due to reduce, reuse and recycling (i.e. 3Rs) initiatives versus the total amount of waste generated (i.e. 3Rs plus landfilled). According to the Ontario Ministry of the Environment, Waste Diversion Rate is calculated as follows:

$$\text{Waste Diversion Rate} = \frac{\text{Total Waste Diverted (3Rs)}}{\text{Total Waste Generated}} * 100\%$$

Based on the total amount of waste generated, as well as materials recycled and reused, the current annual waste diversion rate through existing programs at UofT is approximately 71.5%, as summarized in Table 2

Table 2: Waste Management Summary

Waste Management	Quantity (MT)	Percent (%)
Disposed (general waste)	1,655.9	28.5
Reduce	118.2	2.0
Recycle + Reduced	4,038.7	69.5
Generated (Disposed + 3Rs)	<b>5,812.8</b>	100.0
<b>WASTE DIVERSION RATE</b>		<b>71.5</b>

UofT's Facilities & Services Department is very interested maintaining this impressive result.

### 3.4 Capture Rate

Capture rate is the proportion of divertible wastes which are successfully diverted from disposal. Thus, capture rate assists in determining the effectiveness of recycling programs. This metric can be calculated per material category as well as for the overall facility. The following table determines the capture rate for the main designated materials found during the audit.

Material	3Rs (MT)	Generated (MT)	Capture Rate (%)
Mixed papers	711.2	983.4	72%
Mixed Containers	190.1	303.1	63%
Cardboard	277.1	375.8	74%
Organics	1,084.4	1453.0	75%
Polystyrene	4.1	44.4	9%
Scrap Woods	133.6	154.4	87%
Scrap Metals	64.3	68.1	95%
Electronic Wastes	34.5	37.7	92%
Overall Facility	4,146.3	4,623.5	90%

### 3.5 Waste Reduction - Year over Year Change in Waste Generation

Waste diversion rate and capture rate do not effectively demonstrate how effective a site has implemented waste reduction programs (the first R of the 3Rs hierarchy). The ‘Year over Year Change in Waste Generation’ is an indicator of the amount of wastes reduced per standard unit compared to previous data. For UofT, the most applicable standard unit is full-time equivalent (“FTE”) students.

Period	Total Materials Generated (MT)	FTE	Annual Waste Generation (kg/FTE)	Yr over Yr Change in Waste Generation (kg)
2005 to 2006	5,041.2	43,064	117.1	--
2006 to 2007	5,671.1	44,193	128.3	+11.3
2007 to 2008	5,498.3	44,219	124.3	-4.0
2008 to 2009	5,745.2	45,009	127.6	+3.3
2009 to 2010	5,758.3	45,287	127.2	-0.5
2010 to 2011	5,587.5	48,051	116.3	-10.9
2011 to 2012	5,812.8	48,984	118.7	+2.4

UofT has realized a decrease in the total amount of waste materials generated per FTE in 3 of 6 years based on the data presented above.

### 3.6 3Rs Programs - Year over Year Change in 3Rs Quantities

The ‘Year over Year Change in 3Rs Quantities’ is the indicator of the amount of materials diverted from disposal through reduce, reuse and/or recycle activities per standard unit compared to previous data. For UofT, the most applicable standard unit is Full-time equivalent (“FTE”) students.

Period	Total Materials Reduced, Reused Recycled (MT)	FTE	Annual 3R Quantity (kg/FTE)	Yr over Yr Change in 3Rs Quantity (kg)
2005 to 2006	2,777.8	4,3064	64.5	--
2006 to 2007	3,575.3	44,193	80.9	+16.4
2007 to 2008	3,427.5	44,219	77.5	-3.4
2008 to 2009	3,771.7	45,009	83.8	+6.3
2009 to 2010	3,816.7	45,287	84.3	+0.5
2010 to 2011	3,810.7	48,051	79.3	-5.0
2011 to 2012	4,156.9	48,984	84.9	+5.6

UofT has realized an increase in the amount of 3Rs materials generated per FTE in 4 of 6 years based on the data presented above.

### 3.7 Disposed Wastes - Year over Year Change in Amount Disposed to Landfill

The ‘Year over Year Change in Disposed Wastes’ is the indicator of the amount of materials disposal to landfill per standard unit compared to previous data. For UofT, the most applicable standard unit is Full-time equivalent (“FTE”) students.

Period	Total Materials Disposed to Landfill (MT)	FTE	Annual Disposed Quantity (kg/FTE)	Yr over Yr Change in Disposed Quantity (kg)
2005 to 2006	2,263.44	43,064	52.6	--
2006 to 2007	2,095.86	44,193	47.4	-5.2
2007 to 2008	2,070.76	44,219	46.8	-0.6
2008 to 2009	1,976.47	45,009	43.9	-2.9
2009 to 2010	1,941.56	45,287	42.9	-1.0
2010 to 2011	1,776.80	48,051	37.0	-5.9
2011 to 2012	1,655.94	48,984	33.8	-3.2

UofT has successfully decreased the amount of materials disposed to landfill per FTE in each of the 6 years of data presented above.

### 3.8 Waste to Landfill Reduction

‘Waste to Landfill Reduction’ is the percentage of the cumulative total amount of materials diverted due to reduce, reuse and recycling activities versus the cumulative total amount of waste disposed. ‘Waste to Landfill Reduction’ is calculated as follows:

$$\text{Waste to landfill reduction} = \frac{\left( \sum_{1991}^{\text{Year } i} \text{Total Waste Diverted (3Rs)} \right)}{\left( \sum_{1991}^{\text{Year } i} \text{Total Waste Disposed} \right)} * 100\%$$

The metric demonstrates the cumulative amount of materials diverted from landfill over time compared to the cumulative amount disposed to landfill. If the total cumulative amount of diverted materials (due to 3R initiatives) exceeds the total cumulative amount of disposed wastes, the value will exceed 100%.

Period	Total Materials Diverted (3Rs) <sup>2</sup>	Total Waste Disposed <sup>2</sup>	Waste to Landfill Reduction Since 1991
	Metric Tonnes	Metric Tonnes	%
1991 to 1992	118.8	3,521.0	--
1992 to 1993	599.5	2,201.2	12.6%
1993 to 1994	884.0	2,021.0	20.7%
1994 to 1995	1,067.1	2,037.9	27.3%
1995 to 1996	1,259.1	1,734.8	34.1%
1996 to 1997	1,574.7	1,578.6	42.0%
1997 to 1998	1,719.7	1,467.0	49.6%
1998 to 1999	1,801.0	1,326.6	56.8%
1999 to 2000	1,662.8	1,341.6	62.0%
2000 to 2001	2,000.5	1,804.0	66.7%
2001 to 2002	1,969.6	1,744.0	70.5%
2002 to 2003	2,066.3	1,727.6	74.3%
2003 to 2004	2,163.1	1,711.1	78.0%
2004 to 2005	2,705.2	1,851.8	82.8%
2005 to 2006	2,777.8	2,263.4	86.0%
2006 to 2007	3,575.3	2,095.9	91.8%
2007 to 2008	3,427.5	2,070.8	96.5%
2008 to 2009	3,771.7	1,973.5	101.9%
2009 to 2010	3,816.7	1,941.6	107.0%
2010 to 2011	3,810.7	1,776.8	112.0%
2011 to 2012	4,156.9	1,655.9	117.8%
<b>Cumm. Total</b>	<b>46,925.2</b>	<b>39,846.7</b>	<b>117.8%</b>

Therefore, since 1991, UofT has diverted more materials from landfill through implemented 3R programs than the total amount of material disposed to landfill over the same time period.

Notes:

- 1: Actual data not available. Estimated with average of (2000 to 2001) & (2003 to 2004)
- 2: Data provided by UofT Grounds Services.
3. Total Waste Generated = (Total Materials Recycled/Reused) + (Total Waste Disposed)



### **3.9 Waste Audit Summary & Waste Reduction Work Plan**

As part of fulfilling the *O. Reg. 102/94* requirements, institutions are required to identify who is responsible for implementing each action that will lead to further improvements in the waste reduction programs. Given the large and complex nature of the UofT, these issues were discussed at various site meetings and involved various people at the departmental, faculty, facility and business unit level.

The projection section of the waste reduction and recycling workplan summary has been left blank as per discussions with UofT staff so that they may fill it in as appropriate to their objectives.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

UofT is a leader and a winning institution in its field when it comes to waste reduction and recycling, accepts a wide range of materials for recycling, and the depth and breadth of the programs is impressive. The data used to calculate diversion rates is as accurate as can be and it has been checked, re-checked and makes use of conservative estimates. As previously mentioned, although other programs for reuse have been excluded, they would only further add to the impressive numbers.

Based on the findings of our solid non-hazardous waste audit conducted at UofT, the following conclusions and recommendations are intended to maximize UofT's waste diversion potential:

1. From May 2011 to April 2012, UofT sent approximately 1,655.9 metric tonnes of waste to landfill and diverted approximately 4,156.9 metric tonnes of waste from landfill through recycling and reuse. This represents a diversion rate of approximately 71.5%.
2. According to *O. Reg. 102/94*, the Report of a Waste Audit (Appendix 3) or the Report of Waste Reduction Workplan (Appendix 4) must be posted at UofT in a place where employees/ students can review it. Furthermore, according to *O. Reg. 102/94*, when the summary is posted, the workplan should also be available for review for any of UofT's employees/ students who may requests it.
3. A copy of the waste audit and reduction workplan must be retained on file for at least five years. Other reports and studies done in the past should also be available for review and incorporated in future audits for the sake of comparison and to track progress. *O. Reg.102/94* audits should be conducted annually.
4. Make use of multi-compartment containers for waste collection and recycling as much as possible. This practice is excellent. Given the large size and numerous buildings and departments, there is still a presence of "solitary" waste bins on campus. If an individual is carrying a recyclable material on their person, he/she is more than likely to throw it in a convenient waste can near by than to carry it for long stretches looking for a recycling centre. We recommend eliminated lonely waste bins and only having waste bins that are attached or close to recycling containers. More work is needed to supply depots, especially in the classroom.
5. In general, public areas (i.e. classrooms, hallways) generate more waste and have lower

capture rates of materials.

6. Given the huge size of UofT, both from a geographical foot print point of view and the large numbers of faculties, schools, colleges, administrative and business units, it is important for all of these different communities within the greater community to be aware of what the programs are, who to contact for help or questions and to have as much consistency as possible across the campus.
7. The full waste load audits at the transfer station as shown in the attached tables revealed a very important observation about sample size and procedure. The twenty four hour samples, primarily of bagged waste kept aside by caretaking, were not indicative of large recyclable items and/or full bags of source separated recyclables that were observed in the compactor scale audits. Had this extra step not been taken, the capture rate of a given material would have been greatly skewed.
8. Continued training of F&S staff to minimize bags of clean material ending up in the garbage.

**ENVIROVISION INC.**



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***APPENDIX 1***

**University of Toronto**

2011-2012 Winter Waste Audit Report

WRG Project P0260

Reduce/Reuse/Recycle Programs <b>3Rs Programs</b>	Annual Weight MT	
mixed paper	579.1	
paper towels	119.0	
misc. paper	1.5	
crdboard	277.1	
Shredding est.	130.6	
Metal	75.0	
Wood	119.0	
Yard waste	52.1	
Yard waste from constuction projects	6.0	
Animal bedding	106.4	
Soil & plant p/u	29.8	
Plant & tree use, composting	14.0	
grass & wood mulch	48.0	
asphalt	300.0	
stone, pavers & screening	30.0	
soil from construction projects	300.0	
concrete from constuction	220.0	
clean fill	15.0	
catch basin material	75.0	
Swap Shop - Out, including pad	17.7	
In Swap	12.0	
pallets - recycled & reused	14.6	
batteries	2.9	
fluorescents	7.9	
Polystyrene	4.1	
organics	285.1	
Aero. Misc. pick ups	5.4	
89 Chestnut Organics	585.0	
89 Chestnut B & C	190.8	
M. Hall B & C	23.5	
bottles & cans etc.	170.9	
Coffee cups	11.0	
Amber bottles	3.0	
computers, equipment, disks, cartridges	34.5	
mixed plastics	9.2	
Lab glass & plastic est.	7.0	
Canada Fibres Compactor Recycle Program	156.4	4038.7
Lug-A-Mug Program (Reduction)	73.9	
Photocopier Double-Sided Printing (Reduction)	32.2	
Phone Book (Reduction)	2.7	
Lab Glass Pail Reduction	9.4	118.2
<b>3Rs Sub Total</b>	<b>4156.9</b>	
<b>Garbage Disposed to Landfill</b>	<b>1655.9</b>	
<b>Total Waste Materials Managed</b>	<b>5812.8</b>	
<b>Waste Diversion Rate</b>	<b>71.5%</b>	

***APPENDIX 2***

## U of T Audit Schedule Feb. 6- Feb. 17, 2012

### Compactors Feb. 6 -10

New College, 300 Huron St. – Feb. 6  
Sidney Smith Hall, 100 St. George – Feb. 6  
OISE, 252 Bloor St. W – Feb. 7  
BCIT, 40 St. George St. – Feb. 7  
Robarts Library, 369 Huron St. – Feb. 8  
CCBR, 160 College St. – Feb. 8  
Earth Sciences Centre, 33 Willcocks St. – Feb. 9  
Sanford Fleming Building, 10 King's College Rd. – Feb. 9  
Faculty of Dentistry, 124 Edward St. – Feb. 10  
Connaught Labs, 1 Spadina Crescent - Open Bin – Feb. 10

### 24hr. samples Feb. 13 – Feb. 17

Earth Sciences, 33 Willcocks St. – Feb. 13  
Lash Miller, 80 St. George St. – Feb. 13  
Zoo, 25 Harbord St. - Feb. 13

Woodsworth College, 119 St. George St. – Feb. 14  
Rotman School of management, 105 St. George St. – Feb. 14  
University College, 15 King's College Circle – Feb. 14

Rosebrugh Building, 164 College St. – Feb. 15  
Mining Building, 170 College St. – Feb. 15  
Haultain Building, 170 College St. (Rear) – Feb. 15

Leslie Dan Pharmacy Building, 144 College St. – Feb. 16  
Tanz Building, 6 Queen's Park Crescent W. - Feb. 16  
Fitzgerald Building, 150 College St. – Feb. 16

Galbraith Building, 35 St. George St. – Feb. 17  
Sanford Fleming Building, 10 King's College Rd. – Feb. 17  
Wallberg Building, 184 – 200 College St. – Feb. 17

### Tags

Green – cafeterias  
Red – washrooms  
Blue – offices  
Yellow – labs  
Black – public areas / lobbies  
White – misc.

### Miscellaneous Feb. 13 – Feb. 17

Outdoor containers around campus – Willcocks St. between Huron & St. George, Earth Sciences Centre by Bancroft Ave., GSU on Bancroft Ave., Woodsworth Residence on Bloor and on St. George, Hoskins & St. George, Hart House Circle & King's College Circle

**Waste Audit 24-Hour Sample Data Summary**

**Client:** University of Toronto  
**Job Site:** St. George Campus Waste Composition Summary  
**Date:** Sampling occurred in Feb 13-17, 2012 as follows

Audited Building	Date	Total Sample Size (kg)	Location
Earth Sciences	Feb13/12	18.50	3.20% Earth Sciences Centre - 33 Willcocks Street, Toronto, M5S 3B3, UofT Building#: 62
Lash Miller	Feb13/12	10.50	1.82% Lash Miller Chemical Laboratories (LM) - 80 St. George Street, Toronto M5S 3H6, UofT Building#: 73
Zoology	Feb13/12	26.90	4.66% Ramsay Wright Laboratories (RW) - 25 Harbord Street, Toronto M5S 3G5, UofT Building#: 72
Woodsworth College	Feb14/12	15.35	2.66% Woodsworth College (WW) - 119 St. George Street, Toronto M5S 1A9, UofT Building#: 38
Rotman School of Management	Feb14/12	113.15	19.60% Joseph L. Rotman School of Management (RT) - 105 St. George Street, Toronto M5S 3E6, UofT Building#: 134
University College	Feb14/12	31.05	5.38% University College (UC) - 15 King's College Circle, Toronto M5S 3H7, UofT Building#: 1
Rosebrugh Building	Feb15/12	17.95	3.11% Rosebrugh Building (RS) - 164 College Street, Toronto M5S 3G9, UofT Building#: 20
Mining Building	Feb15/12	29.70	5.15% Lassonde Mining Building (MB) - 170 College Street, Toronto M5S 3E3, UofT Building#: 7
Haultain Building	Feb15/12	16.05	2.78% Haultain Building (HA) - 170 College Street (rear of), Toronto M5S 3E3, UofT Building#: 24
Leslie Dan Pharmacy Building	Feb16/12	27.15	4.70% Leslie L. Dan Pharmacy Building (PB) - 144 College Street, Toronto M5S 3M2, UofT Building#: 161
Tanz Building	Feb16/12	36.90	6.39% Tanz Neuroscience Building (TZ) - 6 Queen's Park Crescent West, Toronto M5S 3H2, UofT Building#: 11
Fitzgerald Building	Feb16/12	27.25	4.72% FitzGerald Building (FG) - 150 College Street, Toronto M5S 1A8, UofT Building#: 25
Galbraith Building	Feb17/12	61.30	10.62% Galbraith Building (GB) 35 St. George Street Toronto M5S 1A4 UofT Building#: 70
Sanford Fleming Building	Feb17/12	99.75	17.28% Sanford Fleming Building - 10 King's College Road, Toronto, M5S 3G4, UofT Building#: 9
Wallberg Building	Feb17/12	20.70	3.59% Wallberg Building (WB) - 184-200 College Street, Toronto M56 3E5, UofT Building#: 8
Outdoor Multi Sort Depots		25.05	4.34% Various
<b>Total Sample:</b>		<b>577.25</b>	

**Table: Overall Summary**

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Misc.		Outdoor Recycling Depot		Total	
<b>Total Weight of Sample (in kg):</b>	72.05		228.60		87.30		82.10		78.15		4.00		25.05		577.25	
<b>Total Percent of Sample (in %):</b>	12.5%		39.6%		15.1%		14.2%		13.5%		0.7%		4.3%		100.0%	
<b>Composition of Garbage:</b>	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%			kg	%
Mixed Papers	18.55	25.7%	42.43	18.6%	3.10	3.6%	5.35	6.5%	22.10	28.3%	0.40	10.0%	2.95	11.8%	94.87	16.4%
Mixed Containers	7.89	10.9%	15.60	6.8%	2.25	2.6%	3.64	4.4%	6.70	8.6%	0.70	17.5%	2.70	10.8%	39.47	6.8%
Cardboard	7.98	11.1%	21.75	9.5%	0.35	0.4%	2.37	2.9%	1.20	1.5%	0.45	11.3%	0.30	1.2%	34.39	6.0%
Coffee Cups	6.00	8.3%	9.50	4.2%	1.10	1.3%	1.90	2.3%	1.85	2.4%	0.40	10.0%	1.15	4.6%	21.89	3.8%
Styrofoam	4.40	6.1%	5.84	2.6%	0.45	0.5%	1.41	1.7%	1.30	1.7%	0.25	6.3%	0.40	1.6%	14.05	2.4%
Organics	5.64	7.8%	54.54	23.9%	0.35	0.4%	52.98	64.5%	4.55	5.8%	0.40	10.0%	10.00	39.9%	128.46	22.3%
Paper Towels	6.09	8.4%	11.43	5.0%	72.75	83.3%	2.51	3.1%	8.40	10.7%	0.30	7.5%	0.00	0.0%	101.47	17.6%
eWastes	0.00	0.0%	0.40	0.2%	0.25	0.3%	0.00	0.0%	0.25	0.3%	0.00	0.0%	0.20	0.8%	1.10	0.2%
Scrap Metals	0.00	0.0%	0.20	0.1%	0.20	0.2%	0.35	0.4%	0.55	0.7%	0.00	0.0%	0.00	0.0%	1.30	0.2%
Scrap Woods	0.20	0.3%	6.60	2.9%	0.00	0.0%	0.45	0.5%	0.00	0.0%	0.00	0.0%	0.00	0.0%	7.25	1.3%
Plastic Films (LDPE)	1.80	2.5%	6.66	2.9%	0.75	0.9%	0.25	0.3%	2.80	3.6%	0.35	8.8%	0.50	2.0%	13.11	2.3%
Plastics - Bulky	2.51	3.5%	4.89	2.1%	0.10	0.1%	1.61	2.0%	3.05	3.9%	0.50	12.5%	0.75	3.0%	13.41	2.3%
Lab Waste	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Yard Waste	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Other / Non recyclable	11.01	15.3%	48.77	21.3%	5.65	6.5%	9.31	11.3%	25.40	32.5%	0.25	6.3%	6.10	24.4%	106.50	18.4%
QAQC Check	72.05	100.0%	228.60	100.0%	87.30	100.0%	82.10	100.0%	78.15	100.0%	4.00	100.0%	25.05	100.0%	577.25	100.0%

Notes:

**Total Weight & Waste Composition**

Composition	Percent	Tonnes
<b>Total Weight Landfilled:</b>		<b>1655.07</b>
Organics	22.3%	368.30
Other / Non recyclable	18.4%	305.34
Paper Towels	17.6%	290.93
Mixed Papers	16.4%	272.01
Mixed Containers	6.8%	113.18
Cardboard	6.0%	98.59
Coffee Cups	3.8%	62.76
Styrofoam	2.4%	40.28
Plastic Films (LDPE)	2.3%	37.57
Plastics - Bulky	2.3%	38.44
Scrap Woods	1.3%	20.79
eWastes	0.2%	3.15
Scrap Metals	0.2%	3.73
<b>Total</b>	<b>100.0%</b>	<b>1655.07</b>

----> Total To Landfill = 1777.5 - 122.54 (recycled with Canada Fibres)

**Canada Fibres Loads**

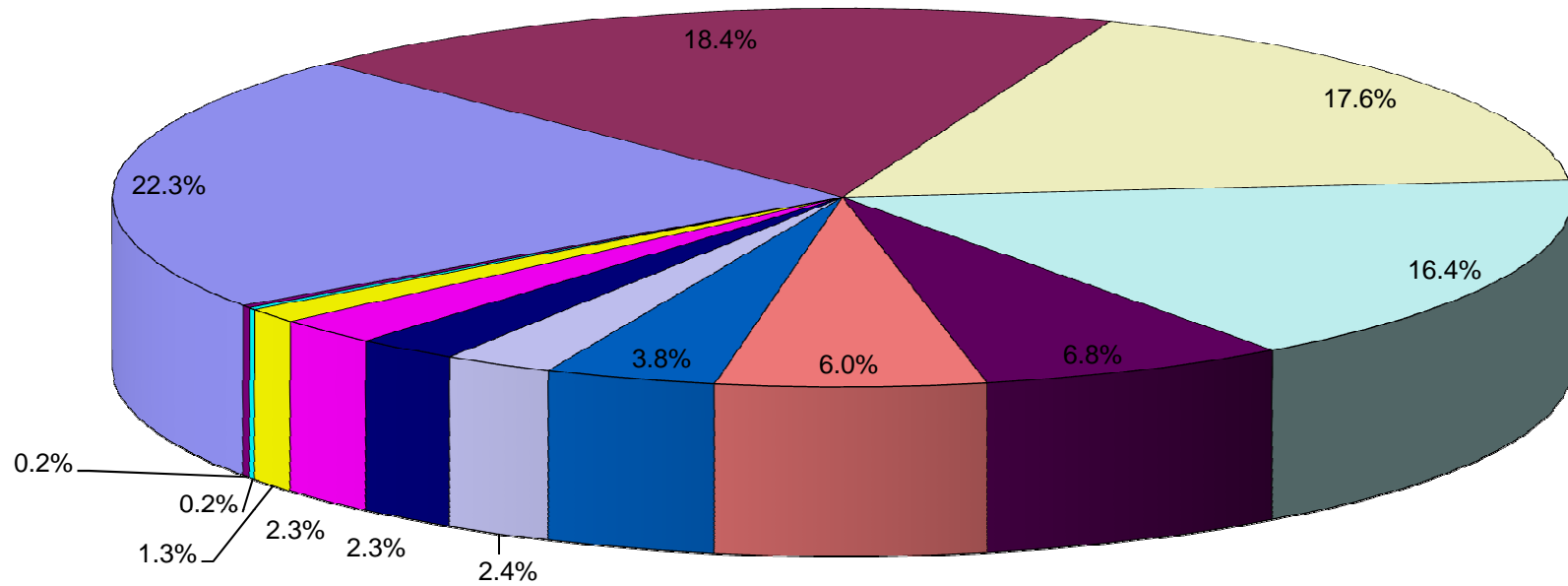
Month	Tonnes	Notes
Jul-11	39,785	
Aug-11	19,6906	
Sep-11	61,2447	
Oct-11		None
Nov-11	78,0822	
Dec-11	44,1486	
Jan-12	47,3964	
Feb-12	9,653	
Mar-12	0,17237	
Apr-12	37,5215	(avg)
<b>Total</b>	<b>337,694</b>	

**Canada Fibres Compactor Recycling**

Composition	Percent	Tonnes
<b>Total Canada Fibre Weights:</b>		<b>337.69</b>
Mixed Papers	16.4%	55.50
Mixed Containers	6.8%	23.09
Cardboard	6.0%	20.12
Styrofoam	2.4%	8.22
Plastic Films (LDPE)	2.3%	7.67
Plastics - Bulky	2.3%	7.84
<b>Total Recycle Content</b>	<b>36.3%</b>	<b>122.43</b>
<b>Total Disposed to Landfill</b>	<b>63.7%</b>	<b>215.26</b>
<b>Overall Total</b>	<b>100.0%</b>	<b>337.69</b>



**University of Toronto St. George Campus  
Winter 2012 Waste Composition Summary  
Based on 24 hr Samples**



Organics	Other / Non recyclable	Paper Towels	Mixed Papers	Mixed Containers
Cardboard	Coffee Cups	Styrofoam	Plastic Films (LDPE)	Plastics - Bulky
Scrap Woods	eWastes	Scrap Metals		

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Earth Sciences

**Date:** Feb13/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			4.30		4.90				9.30				18.50	
Total Percent of Sample (in %):	0.0%		23.2%		26.5%		0.0%		50.3%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers			0.80	18.6%		0.0%				0.0%			0.80	4.3%
Mixed Containers			0.75	17.4%		0.0%			0.55	5.9%			1.30	7.0%
Cardboard			0.15	3.5%		0.0%				0.0%			0.15	0.8%
Coffee Cups			0.60	14.0%	0.05	1.0%				0.0%			0.65	3.5%
Styrofoam			0.10	2.3%		0.0%				0.0%			0.10	0.5%
Organics			0.40	9.3%		0.0%				0.0%			0.40	2.2%
Paper Towels			0.20	4.7%	4.70	95.9%			0.25	2.7%			5.15	27.8%
eWastes				0.0%		0.0%				0.0%			0.00	0.0%
Scrap Metals				0.0%		0.0%				0.0%			0.00	0.0%
Scrap Woods				0.0%		0.0%				0.0%			0.00	0.0%
Plastic Films (LDPE)			0.55	12.8%		0.0%			0.20	2.2%			0.75	4.1%
Plastics - Bulky				0.0%		0.0%				0.0%			0.00	0.0%
Lab Waste				0.0%		0.0%				0.0%			0.00	0.0%
Yard Waste				0.0%		0.0%				0.0%			0.00	0.0%
Other / Non recyclable			0.75	17.4%	0.15	3.1%			8.30	89.2%			9.20	49.7%
QAQC Check	0.00	0.0%	4.30	100.0%	4.90	100.0%	0.00	0.0%	9.30	100.0%	0.00	0.0%	18.50	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Lash Miller

**Date:** Feb13/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			4.80		1.25				4.45				10.50	
Total Percent of Sample (in %):	0.0%		45.7%		11.9%		0.0%		42.4%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers			0.65	13.5%		0.0%			0.40	9.0%			1.05	10.0%
Mixed Containers			0.40	8.3%		0.0%			0.10	2.2%			0.50	4.8%
Cardboard				0.0%		0.0%				0.0%			0.00	0.0%
Coffee Cups			0.40	8.3%		0.0%				0.0%			0.40	3.8%
Styrofoam			0.20	4.2%		0.0%			0.25	5.6%			0.45	4.3%
Organics			0.50	10.4%		0.0%				0.0%			0.50	4.8%
Paper Towels			0.40	8.3%	1.10	88.0%			1.30	29.2%			2.80	26.7%
eWastes				0.0%		0.0%				0.0%			0.00	0.0%
Scrap Metals			0.20	4.2%		0.0%			0.15	3.4%			0.35	3.3%
Scrap Woods				0.0%		0.0%				0.0%			0.00	0.0%
Plastic Films (LDPE)			0.35	7.3%		0.0%			0.30	6.7%			0.65	6.2%
Plastics - Bulky			0.55	11.5%		0.0%			0.25	5.6%			0.80	7.6%
Lab Waste				0.0%		0.0%				0.0%			0.00	0.0%
Yard Waste				0.0%		0.0%				0.0%			0.00	0.0%
Other / Non recyclable	0.00		1.15	24.0%	0.15	12.0%			1.70	38.2%			3.00	28.6%
QAQC Check	0.00	0.0%	4.80	100.0%	1.25	100.0%	0.00	0.0%	4.45	100.0%	0.00	0.0%	10.50	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Zoology

**Date:** Feb13/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			7.70		4.85		1.10		13.25				26.90	
Total Percent of Sample (in %):	0.0%		28.6%		18.0%		4.1%		49.3%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers			1.55	20.1%	0.45	9.3%	0.15	13.6%	9.20	69.4%			11.35	42.2%
Mixed Containers			0.65	8.4%		0.0%		0.0%	0.20	1.5%			0.85	3.2%
Cardboard			0.60	7.8%		0.0%		0.0%		0.0%			0.60	2.2%
Coffee Cups			0.30	3.9%		0.0%	0.10	9.1%		0.0%			0.40	1.5%
Styrofoam			0.30	3.9%		0.0%	0.10	9.1%		0.0%			0.40	1.5%
Organics			0.30	3.9%		0.0%	0.20	18.2%		0.0%			0.50	1.9%
Paper Towels			0.35	4.5%	2.45	50.5%	0.10	9.1%	1.60	12.1%			4.50	16.7%
eWastes				0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Scrap Metals				0.0%	0.20	4.1%		0.0%	0.10	0.8%			0.30	1.1%
Scrap Woods			1.15	14.9%		0.0%		0.0%		0.0%			1.15	4.3%
Plastic Films (LDPE)			0.80	10.4%	0.70	14.4%		0.0%	0.85	6.4%			2.35	8.7%
Plastics - Bulky			0.30	3.9%		0.0%	0.15	13.6%		0.0%			0.45	1.7%
Lab Waste				0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Yard Waste				0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Other / Non recyclable			1.40	18.2%	1.05	21.6%	0.30	27.3%	1.30	9.8%			4.05	15.1%
QAQC Check	0.00	0.0%	7.70	100.0%	4.85	100.0%	1.10	100.0%	13.25	100.0%	0.00	0.0%	26.90	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Woodsworth College

**Date:** Feb14/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	1.55		7.00		4.95		1.85						15.35	
Total Percent of Sample (in %):	10.1%		45.6%		32.2%		12.1%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers		0.0%	0.79	11.3%	0.30	6.1%		0.0%					1.09	7.1%
Mixed Containers	0.25	16.1%	0.26	3.8%	0.05	1.0%		0.0%					0.56	3.7%
Cardboard		0.0%	0.44	6.3%		0.0%		0.0%					0.44	2.9%
Coffee Cups	0.10	6.5%	0.79	11.3%	0.15	3.0%		0.0%					1.04	6.8%
Styrofoam		0.0%	0.35	5.0%		0.0%		0.0%					0.35	2.3%
Organics		0.0%	2.89	41.3%	0.10	2.0%	1.30	70.3%					4.29	27.9%
Paper Towels	0.45	29.0%	0.20	2.9%	4.15	83.8%		0.0%					4.80	31.3%
eWastes		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Plastic Films (LDPE)	0.45	29.0%	0.20	2.9%		0.0%		0.0%					0.65	4.2%
Plastics - Bulky	0.10	6.5%		0.0%		0.0%		0.0%					0.10	0.7%
Lab Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable	0.20	12.9%	1.09	15.5%	0.20	4.0%	0.55	29.7%					2.04	13.3%
QAQC Check	1.55	100.0%	7.00	100.0%	4.95	100.0%	1.85	100.0%	0.00	0.0%	0.00	0.0%	15.35	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto  
**Job Site:** Rotman School of Management  
**Date:** Feb14/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	14.45		47.65				51.05						113.15	
Total Percent of Sample (in %):	12.8%		42.1%		0.0%		45.1%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	2.80	19.4%	2.80	5.9%			0.50	1.0%					6.10	5.4%
Mixed Containers	0.44	3.0%	1.90	4.0%			1.49	2.9%					3.82	3.4%
Cardboard	1.98	13.7%	9.00	18.9%			0.17	0.3%					11.14	9.8%
Coffee Cups	2.20	15.2%	0.90	1.9%			0.25	0.5%					3.34	3.0%
Styrofoam	2.20	15.2%	0.30	0.6%			0.41	0.8%					2.91	2.6%
Organics	1.54	10.6%	27.80	58.3%			45.13	88.4%					74.46	65.8%
Paper Towels	1.54	10.6%	3.00	6.3%			1.16	2.3%					5.69	5.0%
eWastes		0.0%	0.40	0.8%				0.0%					0.40	0.4%
Scrap Metals		0.0%	0.00	0.0%				0.0%					0.00	0.0%
Scrap Woods		0.0%	0.00	0.0%				0.0%					0.00	0.0%
Plastic Films (LDPE)		0.0%	0.30	0.6%			0.25	0.5%					0.55	0.5%
Plastics - Bulky	0.66	4.6%		0.0%			1.16	2.3%					1.81	1.6%
Lab Waste		0.0%		0.0%				0.0%					0.00	0.0%
Yard Waste		0.0%		0.0%				0.0%					0.00	0.0%
Other / Non recyclable	1.11	7.7%	1.25	2.6%			0.56	1.1%					2.92	2.6%
QAQC Check	14.45	100.0%	47.65	100.0%	0.00	0.0%	51.05	100.0%	0.00	0.0%	0.00	0.0%	113.15	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** University College

**Date:** Feb14/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	3.70		14.70				12.65						31.05	
Total Percent of Sample (in %):	11.9%		47.3%		0.0%		40.7%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	1.55	41.9%	2.15	14.6%			0.45	3.6%					4.15	13.4%
Mixed Containers	0.55	14.9%	0.65	4.4%			1.45	11.5%					2.65	8.5%
Cardboard		0.0%	1.25	8.5%			0.35	2.8%					1.60	5.2%
Coffee Cups	0.35	9.5%	1.00	6.8%			0.95	7.5%					2.30	7.4%
Styrofoam	0.15	4.1%	1.15	7.8%			0.65	5.1%					1.95	6.3%
Organics		0.0%	2.15	14.6%			4.90	38.7%					7.05	22.7%
Paper Towels	0.50	13.5%	2.25	15.3%			0.95	7.5%					3.70	11.9%
eWastes		0.0%		0.0%				0.0%					0.00	0.0%
Scrap Metals		0.0%		0.0%				0.0%					0.00	0.0%
Scrap Woods		0.0%		0.0%				0.0%					0.00	0.0%
Plastic Films (LDPE)		0.0%	0.20	1.4%				0.0%					0.20	0.6%
Plastics - Bulky		0.0%	0.35	2.4%			0.30	2.4%					0.65	2.1%
Lab Waste		0.0%		0.0%				0.0%					0.00	0.0%
Yard Waste		0.0%		0.0%				0.0%					0.00	0.0%
Other / Non recyclable	0.60	16.2%	3.55	24.1%			2.65	20.9%					6.80	21.9%
QAQC Check	3.70	100.0%	14.70	100.0%	0.00	0.0%	12.65	100.0%	0.00	0.0%	0.00	0.0%	31.05	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Rosebrugh Building

**Date:** Feb15/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	5.05		7.90		5.00								17.95	
Total Percent of Sample (in %):	28.1%		44.0%		27.9%		0.0%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	0.60	11.9%	5.40	68.4%	1.05	21.0%							7.05	39.3%
Mixed Containers	1.55	30.7%	0.35	4.4%	0.90	18.0%							2.80	15.6%
Cardboard		0.0%		0.0%		0.0%							0.00	0.0%
Coffee Cups	0.45	8.9%	0.15	1.9%	0.40	8.0%							1.00	5.6%
Styrofoam	0.35	6.9%	0.50	6.3%	0.40	8.0%							1.25	7.0%
Organics		0.0%		0.0%	0.25	5.0%							0.25	1.4%
Paper Towels	0.35	6.9%	0.55	7.0%	1.45	29.0%							2.35	13.1%
eWastes		0.0%		0.0%	0.25	5.0%							0.25	1.4%
Scrap Metals		0.0%		0.0%		0.0%							0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%							0.00	0.0%
Plastic Films (LDPE)		0.0%	0.50	6.3%		0.0%							0.50	2.8%
Plastics - Bulky		0.0%		0.0%		0.0%							0.00	0.0%
Lab Waste		0.0%		0.0%		0.0%							0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%							0.00	0.0%
Other / Non recyclable	1.75	34.7%	0.45	5.7%	0.30	6.0%							2.50	13.9%
QAQC Check	5.05	100.0%	7.90	100.0%	5.00	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	17.95	100.0%

**General Comments and Observations:**



### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Mining Building

**Date:** Feb15/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	1.65		9.80		8.40				9.85				29.70	
Total Percent of Sample (in %):	5.6%		33.0%		28.3%		0.0%		33.2%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	0.10	6.1%	2.55	26.0%	0.60	7.1%			5.60	56.9%			8.85	29.8%
Mixed Containers	0.15	9.1%	1.35	13.8%	0.45	5.4%			2.35	23.9%			4.30	14.5%
Cardboard	0.10	6.1%		0.0%	0.35	4.2%				0.0%			0.45	1.5%
Coffee Cups	0.10	6.1%	0.60	6.1%	0.10	1.2%			0.35	3.6%			1.15	3.9%
Styrofoam		0.0%	0.60	6.1%		0.0%			0.10	1.0%			0.70	2.4%
Organics	0.15	9.1%	2.70	27.6%		0.0%				0.0%			2.85	9.6%
Paper Towels	0.90	54.5%	0.75	7.7%	6.65	79.2%			0.30	3.0%			8.60	29.0%
eWastes		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Plastic Films (LDPE)		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Plastics - Bulky		0.0%		0.0%		0.0%			0.20	2.0%			0.20	0.7%
Lab Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Other / Non recyclable	0.15	9.1%	1.25	12.8%	0.25	3.0%			0.95	9.6%			2.60	8.8%
QAQC Check	1.65	100.0%	9.80	100.0%	8.40	100.0%	0.00	0.0%	9.85	100.0%	0.00	0.0%	29.70	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Haultain Building

**Date:** Feb15/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	1.90		6.75						7.40				16.05	
Total Percent of Sample (in %):	11.8%		42.1%		0.0%		0.0%		46.1%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	0.25	13.2%	0.7	10.4%					0.10	1.4%			1.05	6.5%
Mixed Containers	0.55	28.9%	0.90	13.3%					1.05	14.2%			2.50	15.6%
Cardboard		0.0%	0.45	6.7%					0.10	1.4%			0.55	3.4%
Coffee Cups	0.15	7.9%	0.45	6.7%					0.45	6.1%			1.05	6.5%
Styrofoam	0.15	7.9%	0.40	5.9%					0.40	5.4%			0.95	5.9%
Organics	0.20	10.5%	0.65	9.6%					0.65	8.8%			1.50	9.3%
Paper Towels	0.40	21.1%	1.60	23.7%					3.85	52.0%			5.85	36.4%
eWastes		0.0%		0.0%						0.0%			0.00	0.0%
Scrap Metals		0.0%		0.0%					0.30	4.1%			0.30	1.9%
Scrap Woods		0.0%		0.0%						0.0%			0.00	0.0%
Plastic Films (LDPE)		0.0%	0.35	5.2%					0.25	3.4%			0.60	3.7%
Plastics - Bulky		0.0%		0.0%						0.0%			0.00	0.0%
Lab Waste		0.0%		0.0%						0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%						0.0%			0.00	0.0%
Other / Non recyclable	0.20	10.5%	1.25	18.5%					0.25	3.4%			1.70	10.6%
QAQC Check	1.90	100.0%	6.75	100.0%	0.00	0.0%	0.00	0.0%	7.40	100.0%	0.00	0.0%	16.05	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto  
**Job Site:** Leslie Dan Pharmacy Building  
**Date:** Feb16/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	6.35		14.50						6.30				27.15	
Total Percent of Sample (in %):	23.4%		53.4%		0.0%		0.0%		23.2%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	2.75	43.3%	2.1	14.5%					0.75	11.9%			5.60	20.6%
Mixed Containers	0.40	6.3%	1.00	6.9%					0.85	13.5%			2.25	8.3%
Cardboard	0.45	7.1%	3.25	22.4%					0.25	4.0%			3.95	14.5%
Coffee Cups	0.20	3.1%	0.45	3.1%					0.30	4.8%			0.95	3.5%
Styrofoam	0.15	2.4%	0.15	1.0%					0.15	2.4%			0.45	1.7%
Organics		0.0%	0.40	2.8%					0.35	5.6%			0.75	2.8%
Paper Towels	0.20	3.1%	0.20	1.4%					0.15	2.4%			0.55	2.0%
eWastes		0.0%		0.0%						0.0%			0.00	0.0%
Scrap Metals		0.0%		0.0%						0.0%			0.00	0.0%
Scrap Woods		0.0%	1.80	12.4%						0.0%			1.80	6.6%
Plastic Films (LDPE)	0.15	2.4%	0.15	1.0%					0.35	5.6%			0.65	2.4%
Plastics - Bulky	0.40	6.3%	0.30	2.1%					0.25	4.0%			0.95	3.5%
Lab Waste		0.0%		0.0%						0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%						0.0%			0.00	0.0%
Other / Non recyclable	1.65	26.0%	4.70	32.4%					2.90	46.0%			9.25	34.1%
QAQC Check	6.35	100.0%	14.50	100.0%	0.00	0.0%	0.00	0.0%	6.30	100.0%	0.00	0.0%	27.15	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Tanz Building

**Date:** Feb16/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	8.05		9.90		7.95				11.00				36.90	
Total Percent of Sample (in %):	21.8%		26.8%		21.5%		0.0%		29.8%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	4.45	55.3%	2.10	21.2%	0.15	1.9%			1.00	9.1%			7.70	20.9%
Mixed Containers	0.55	6.8%	0.50	5.1%	0.10	1.3%			0.60	5.5%			1.75	4.7%
Cardboard	1.65	20.5%	0.60	6.1%		0.0%				0.0%			2.25	6.1%
Coffee Cups	0.40	5.0%	0.75	7.6%	0.10	1.3%			0.25	2.3%			1.50	4.1%
Styrofoam	0.05	0.6%		0.0%		0.0%			0.05	0.5%			0.10	0.3%
Organics	0.35	4.3%	1.30	13.1%		0.0%			2.90	26.4%			4.55	12.3%
Paper Towels	0.20	2.5%	0.15	1.5%	6.80	85.5%			0.10	0.9%			7.25	19.6%
eWastes		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Plastic Films (LDPE)		0.0%	0.10	1.0%		0.0%				0.0%			0.10	0.3%
Plastics - Bulky	0.05	0.6%	0.65	6.6%		0.0%			0.55	5.0%			1.25	3.4%
Lab Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Other / Non recyclable	0.35	4.3%	3.75	37.9%	0.80	10.1%			5.55	50.5%			10.45	28.3%
QAQC Check	8.05	100.0%	9.90	100.0%	7.95	100.0%	0.00	0.0%	11.00	100.0%	0.00	0.0%	36.90	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Fitzgerald Building

**Date:** Feb16/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	3.70		11.25		4.25				8.05				27.25	
Total Percent of Sample (in %):	13.6%		41.3%		15.6%		0.0%		29.5%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	0.85	23.0%	2.31	20.5%	0.35	8.2%			3.30	41.0%			6.81	25.0%
Mixed Containers	0.25	6.8%	2.48	22.0%	0.30	7.1%			0.45	5.6%			3.48	12.8%
Cardboard		0.0%	1.49	13.2%		0.0%			0.25	3.1%			1.74	6.4%
Coffee Cups	0.15	4.1%	1.32	11.7%	0.10	2.4%			0.15	1.9%			1.72	6.3%
Styrofoam	0.15	4.1%	0.50	4.4%	0.05	1.2%			0.15	1.9%			0.85	3.1%
Organics	0.30	8.1%	0.83	7.3%		0.0%			0.20	2.5%			1.33	4.9%
Paper Towels	0.25	6.8%	0.66	5.9%	3.15	74.1%			0.30	3.7%			4.36	16.0%
eWastes		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap Woods	0.20	5.4%		0.0%		0.0%				0.0%			0.20	0.7%
Plastic Films (LDPE)	0.10	2.7%	0.17	1.5%	0.05	1.2%			0.05	0.6%			0.37	1.3%
Plastics - Bulky		0.0%	1.16	10.3%	0.10	2.4%			0.50	6.2%			1.76	6.4%
Lab Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Other / Non recyclable	1.45	39.2%	0.36	3.2%	0.15	3.5%			2.70	33.5%			4.66	17.1%
QAQC Check	3.70	100.0%	11.25	100.0%	4.25	100.0%	0.00	0.0%	8.05	100.0%	0.00	0.0%	27.25	100.0%

**General Comments and Observations:**

**Waste Audit Data Collection Sheet**

**Client:** University of Toronto

**Job Site:** Gailbraith Building

**Date:** Feb17/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
<b>Total Weight of Sample (in kg):</b>			43.30		18.00								61.30	
<b>Total Percent of Sample (in %):</b>	0.0%		70.6%		29.4%		0.0%		0.0%		0.0%		100.0%	
<b>Composition of Garbage:</b>	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers			14.73	34.0%	0.20	1.1%							14.93	24.4%
Mixed Containers			1.61	3.7%	0.15	0.8%							1.76	2.9%
Cardboard			2.47	5.7%		0.0%							2.47	4.0%
Coffee Cups			1.29	3.0%		0.0%							1.29	2.1%
Styrofoam			0.65	1.5%		0.0%							0.65	1.1%
Organics			11.18	25.8%		0.0%							11.18	18.2%
Paper Towels			0.97	2.2%	15.80	87.8%							16.77	27.4%
eWastes				0.0%		0.0%							0.00	0.0%
Scrap Metals				0.0%		0.0%							0.00	0.0%
Scrap Woods			3.65	8.4%		0.0%							3.65	6.0%
Plastic Films (LDPE)			2.04	4.7%		0.0%							2.04	3.3%
Plastics - Bulky			0.54	1.2%		0.0%							0.54	0.9%
Lab Waste				0.0%		0.0%							0.00	0.0%
Yard Waste				0.0%		0.0%							0.00	0.0%
Other / Non recyclable			4.18	9.6%	1.85	10.3%							6.03	9.8%
QAQC Check	0.00	0.0%	43.30	100.0%	18.00	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	61.30	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto  
**Job Site:** Sanford Fleming Building  
**Date:** Feb17/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	25.65		28.45		22.70		15.45		7.50				99.75	
Total Percent of Sample (in %):	25.7%		28.5%		22.8%		15.5%		7.5%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	5.20	20.3%	2.85	10.0%		0.0%	4.25	27.5%	1.65	22.0%			13.95	14.0%
Mixed Containers	3.20	12.5%	0.85	3.0%	0.25	1.1%	0.70	4.5%	0.40	5.3%			5.40	5.4%
Cardboard	3.80	14.8%	1.35	4.7%		0.0%	1.85	12.0%	0.60	8.0%			7.60	7.6%
Coffee Cups	1.90	7.4%	0.15	0.5%	0.15	0.7%	0.60	3.9%	0.20	2.7%			3.00	3.0%
Styrofoam	1.20	4.7%	0.40	1.4%		0.0%	0.25	1.6%	0.15	2.0%			2.00	2.0%
Organics	3.10	12.1%	2.45	8.6%		0.0%	1.45	9.4%	0.20	2.7%			7.20	7.2%
Paper Towels	1.30	5.1%	0.15	0.5%	21.65	95.4%	0.30	1.9%	0.55	7.3%			23.95	24.0%
eWastes		0.0%		0.0%		0.0%		0.0%	0.25	3.3%			0.25	0.3%
Scrap Metals		0.0%		0.0%		0.0%	0.35	2.3%		0.0%			0.35	0.4%
Scrap Woods		0.0%		0.0%		0.0%	0.45	2.9%		0.0%			0.45	0.5%
Plastic Films (LDPE)	1.10	4.3%	0.50	1.8%		0.0%		0.0%	0.65	8.7%			2.25	2.3%
Plastics - Bulky	1.30	5.1%	1.05	3.7%		0.0%		0.0%	1.10	14.7%			3.45	3.5%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Other / Non recyclable	3.55	13.8%	18.70	65.7%	0.65	2.9%	5.25	34.0%	1.75	23.3%			29.90	30.0%
QAQC Check	25.65	100.0%	28.45	100.0%	22.70	100.0%	15.45	100.0%	7.50	100.0%	0.00	0.0%	99.75	100.0%

**General Comments and Observations:**

### Waste Audit Data Collection Sheet

**Client:** University of Toronto

**Job Site:** Wallberg Building

**Date:** Feb17/12

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			10.60		5.05				1.05		4.00		20.70	
Total Percent of Sample (in %):	0.0%		51.2%		24.4%		0.0%		5.1%		19.3%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers			0.95	9.0%		0.0%			0.10	9.5%	0.40	10.0%	1.45	7.0%
Mixed Containers			1.95	18.4%	0.05	1.0%			0.15	14.3%	0.70	17.5%	2.85	13.8%
Cardboard			0.70	6.6%		0.0%				0.0%	0.45	11.3%	1.15	5.6%
Coffee Cups			0.35	3.3%	0.05	1.0%			0.15	14.3%	0.40	10.0%	0.95	4.6%
Styrofoam			0.25	2.4%		0.0%			0.05	4.8%	0.25	6.3%	0.55	2.7%
Organics			1.00	9.4%		0.0%			0.25	23.8%	0.40	10.0%	1.65	8.0%
Paper Towels				0.0%	4.85	96.0%				0.0%	0.30	7.5%	5.15	24.9%
eWastes				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Scrap Metals				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Scrap Woods				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Plastic Films (LDPE)			0.45	4.2%		0.0%			0.15	14.3%	0.35	8.8%	0.95	4.6%
Plastics - Bulky				0.0%		0.0%			0.20	19.0%	0.50	12.5%	0.70	3.4%
Lab Waste				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Yard Waste				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Other / Non recyclable			4.95	46.7%	0.10	2.0%			0.00	0.0%	0.25	6.3%	5.30	25.6%
QAQC Check	0.00	0.0%	10.60	100.0%	5.05	100.0%	0.00	0.0%	1.05	100.0%	4.00	100.0%	20.70	100.0%

**General Comments and Observations:**



**Waste Audit Data Collection Sheet**

**Client:** University of Toronto

**Job Site:** Random Outdoor Multi Sort Depots

**Date:**

Waste Compartment														
Area of Collection:	A		B		C		D		E		F		Total	
<b>Total Weight of Sample (in kg):</b>	3.95		4.20		4.50		3.70		4.60		4.10		25.05	
<b>Total Percent of Sample (in %):</b>	15.8%		16.8%		18.0%		14.8%		18.4%		16.4%		65.3%	
<b>Composition of Garbage:</b>	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	0.50	12.7%	0.40	9.5%	0.55	12.2%	0.60	16.2%	0.45	9.8%	0.45	11.0%	2.95	11.8%
Mixed Containers	0.20	5.1%	0.20	4.8%	0.85	18.9%	0.20	5.4%	0.55	12.0%	0.70	17.1%	2.70	10.8%
Cardboard		0.0%		0.0%		0.0%	0.10	2.7%	0.10	2.2%	0.10	2.4%	0.30	1.2%
Coffee Cups	0.35	8.9%	0.15	3.6%		0.0%	0.20	5.4%	0.30	6.5%	0.15	3.7%	1.15	4.6%
Styrofoam	0.10	2.5%	0.05	1.2%	0.20	4.4%		0.0%		0.0%	0.05	1.2%	0.40	1.6%
Organics	1.80	45.6%	2.75	65.5%	1.00	22.2%	1.25	33.8%	1.30	28.3%	1.90	46.3%	10.00	39.9%
Paper Towels		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
eWastes		0.0%	0.20	4.8%		0.0%		0.0%		0.0%		0.0%	0.20	0.8%
Scrap Metals		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastic Films (LDPE)	0.30	7.6%		0.0%		0.0%	0.10	2.7%	0.10	2.2%		0.0%	0.50	2.0%
Plastics - Bulky	0.05	1.3%	0.30	7.1%		0.0%	0.20	5.4%	0.20	4.3%		0.0%	0.75	3.0%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable	0.65	16.5%	0.15	3.6%	1.90	42.2%	1.05	28.4%	1.60	34.8%	0.75	18.3%	6.10	24.4%
QAQC Check	3.95	100%	4.20	100%	4.50	100%	3.70	100%	4.60	100%	4.10	100%	25.05	100%
<b>Contamination Rate</b>		<b>26.6%</b>		<b>17.9%</b>		<b>31.1%</b>		<b>29.7%</b>		<b>30.4%</b>		<b>34.1%</b>		<b>28.3%</b>

Mixed Containers Compartment														
Area of Collection:	A		B		C		D		E		F		Total	
<b>Total Weight of Sample (in kg):</b>	3.20		5.50		4.10		2.30		2.20		4.00		21.30	
<b>Total Percent of Sample (in %):</b>	15.0%		25.8%		19.2%		10.8%		10.3%		18.8%		70.9%	
<b>Composition of Garbage:</b>	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Mixed Containers	3.10	96.9%	5.40	98.2%	3.80	92.7%	1.90	82.6%	1.60	72.7%	3.65	91.3%	19.45	91.3%
Cardboard		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Coffee Cups		0.0%	0.05	0.9%	0.10	2.4%	0.20	8.7%	0.20	9.1%	0.10	2.5%	0.65	3.1%
Styrofoam		0.0%	0.05	0.9%	0.05	1.2%		0.0%	0.05	2.3%		0.0%	0.15	0.7%
Organics		0.0%		0.0%		0.0%	0.10	4.3%		0.0%		0.0%	0.10	0.5%
Paper Towels		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
eWastes		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastic Films (LDPE)		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastics - Bulky		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable	0.10	3.1%	0.00	0.0%	0.15	3.7%	0.10	4.3%	0.35	15.9%	0.25	6.3%	0.95	4.5%
QAQC Check	3.20	100%	5.50	100%	4.10	100%	2.30	100%	2.20	100%	4.00	100%	21.30	100%
<b>Contamination Rate</b>		<b>3.1%</b>		<b>1.8%</b>		<b>7.3%</b>		<b>17.4%</b>		<b>27.3%</b>		<b>8.8%</b>		<b>8.7%</b>

Mixed Papers Compartment														
Area of Collection:	A		B		C		D		E		F		Total	
<b>Total Weight of Sample (in kg):</b>	1.85		1.90		2.40		2.10		1.80		0.75		10.80	
<b>Total Percent of Sample (in %):</b>	17.1%		17.6%		22.2%		19.4%		16.7%		6.9%		76.4%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers	1.55	83.8%	1.75	92.1%	2.25	93.8%	1.90	90.5%	1.65	91.7%	0.60	80.0%	9.70	89.8%
Mixed Containers		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Cardboard		0.0%		0.0%		0.0%		0.0%	0.10	5.6%		0.0%	0.10	0.9%
Coffee Cups		0.0%		0.0%	0.05	2.1%		0.0%	0.05	2.8%		0.0%	0.10	0.9%
Styrofoam		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Organics		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Paper Towels		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
eWastes		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastic Films (LDPE)		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastics - Bulky		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable	0.30	16.2%	0.15	7.9%	0.10	4.2%	0.20	9.5%	0.00	0.0%	0.15	20.0%	0.90	8.3%
QAQC Check	1.85	100%	1.90	100%	2.40	100%	2.10	100%	1.80	100%	0.75	100%	10.80	100%
<b>Contamination Rate</b>		<b>16.2%</b>		<b>7.9%</b>		<b>6.3%</b>		<b>9.5%</b>		<b>8.3%</b>		<b>20.0%</b>		<b>10.2%</b>

Coffee Cups Compartment														
Area of Collection:	A		B		C		D		E		F		Total	
<b>Total Weight of Sample (in kg):</b>	2.10		1.00		2.20		2.40		1.30		1.90		10.90	
<b>Total Percent of Sample (in %):</b>	19.3%		9.2%		20.2%		22.0%		11.9%		17.4%		70.6%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Papers		0.0%	0.10	10.0%	0.10	4.5%	0.10	4.2%		0.0%		0.0%	0.30	2.8%
Mixed Containers	0.20	9.5%		0.0%	0.10	4.5%	0.05	2.1%		0.0%	0.15	7.9%	0.50	4.6%
Cardboard		0.0%	0.10	10.0%		0.0%		0.0%		0.0%		0.0%	0.10	0.9%
Coffee Cups	1.65	78.6%	0.50	50.0%	1.70	77.3%	1.55	64.6%	1.25	96.2%	1.70	89.5%	8.35	76.6%
Styrofoam		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Organics		0.0%	0.20	20.0%		0.0%		0.0%		0.0%		0.0%	0.20	1.8%
Paper Towels		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
eWastes		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Metals		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap Woods		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastic Films (LDPE)		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastics - Bulky		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Yard Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable	0.25	11.9%	0.10	10.0%	0.30	13.6%	0.70	29.2%	0.05	3.8%	0.05	2.6%	1.45	13.3%
QAQC Check	2.10	100%	1.00	100%	2.20	100%	2.40	100%	1.30	100%	1.90	100%	10.90	100%
<b>Contamination Rate</b>		<b>21.4%</b>		<b>50.0%</b>		<b>22.7%</b>		<b>35.4%</b>		<b>3.8%</b>		<b>10.5%</b>		<b>23.4%</b>

Location Legend:

- A Willcocks St. between Huron & St. George,
- B Earth Sciences Centre by Bancroft Ave.,
- C GSU on Bancroft Ave.,
- D Woodsworth Residence on Bloor and on St. George,
- E Hoskins & St. George,
- F Hart House Circle & King's College Circle

**Waste Audit Data Collection Sheet**

**Client:** University of Toronto  
**Job Site:** Random Sort  
**Date:**

	<b>Mixed papers</b>	<b>%</b>
<b>Total Weight of Sample (in kg):</b>	11.25	100.0%
<b>Composition of Waste:</b>		
FINE PAPER	3.40	30.2%
NEWSPRINT	4.35	38.6%
BOXBOARD	1.20	10.7%
OTHER Papers (MAGAZINES, MOULDED, ETC)	2.30	20.4%
	<b>Mixed Containers</b>	<b>%</b>
<b>Total Weight of Sample (in kg):</b>	6.78	100.0%
<b>Composition of Waste:</b>		
PET (#1 Plastic) - Water Bottles	2.80	41.3%
HDPE Bottles (#2 Plastic) - Hard Coloured	0.18	2.6%
Polypro (#5 Plastic) - Yogurt	0.76	11.2%
Tetra Paks/Milk Cartons	1.17	17.2%
Aluminum Cans	0.88	12.9%
Glass Bottles	0.60	8.8%
Steel (Tuna, Soup, Vegetable)	0.40	5.9%

***APPENDIX 3***

# Ministry of the Environment Waste Form

## Report of a Waste Audit

### Industrial, Commercial and Institutional Establishments

As required by O. Reg. 102/94

- *This report must be prepared 6 months after becoming subject to O. Reg. 102/94 and a copy retained on file for at least five years after it is prepared, and be made available to the ministry upon request.*
- *For large construction and demolition projects, please refer to the forms included with “A Guide to Waste Audits and Waste Reduction Work Plans for Construction and Demolition Projects as Required Under Ontario Regulation 102/94” (revised July 2008)*

#### I. GENERAL INFORMATION

<b>Name of Owner and/or Operator of Entity(ies) and Company Name:</b> University of Toronto			
<b>Name of Contact Person:</b> Reno Strano		<b>Telephone #:</b> 416-946-5711	<b>Email address:</b> <a href="mailto:Reno.strano@utoronto.ca">Reno.strano@utoronto.ca</a>
<b>Street Address(es) of Entity(ies):</b> 487 Spadina Ave			
<b>Municipality:</b> Toronto, Ontario			
<b>Type of Entity (check one)</b>			
Retail Shopping Establishments	<input type="checkbox"/>	Hotels and Motels	<input type="checkbox"/>
Retail Shopping Complexes	<input type="checkbox"/>	Hospitals	<input type="checkbox"/>
Office Buildings	<input type="checkbox"/>	Educational Institutions	<input checked="" type="checkbox"/>
Restaurants	<input type="checkbox"/>	Large Manufacturing Establishments	<input type="checkbox"/>

**Note:** O. Reg. 102/94 does not apply to multi-unit residential buildings.

#### II. DESCRIPTION OF ENTITY

<p>Provide a brief overview of the entity(ties):</p> <p>The University of Toronto is a large multi-building, multi-facility community that has approximately 60 thousand students, staff and faculty occupying several major city blocks with over 140 buildings that generate waste and recycling materials. U of T is required to conduct an annual waste audit since it satisfies Part X of Ontario Regulation (“O. Reg.”) 102/94 – Waste Audits and Waste Reduction Workplans (“O. Reg. 102/94”) which requires educational institutions to conduct waste audits and prepare waste reduction plans on an annual basis if the location or campus has more than 350 full or part-time persons enrolled during the calendar year.</p>
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### III. HOW WASTE IS PRODUCED AND DECISIONS AFFECTING THE PRODUCTION OF WASTE

For each category of waste that is produced at the entity(ies), explain how the waste will be produced and how management decisions and policies will affect the production of waste.

Categories of Waste	How Is the Waste Produced and What Management Decisions/Policies Affect Its Production?
Aluminum food and beverage cans	Produced in the cafeteria or brought in by students/visitors
Cardboard	Produced from packaged goods, unpackaged in office & administrative area.
Fine paper	Produced on each building by students. Policy to use duplex printing to reduce paper consumption. Small amounts from office.
Glass food and beverage bottles/jars	Produced in cafeteria or brought in by students/visitors.
Newsprint	Newspapers brought in by students or available in cafeteria.
Steel food and beverage cans	Produced in cafeteria or brought in by students/visitors.
PET (#1) plastic food and beverage bottles	Produced in cafeteria or brought in by students/visitors.
HDPE (#2) plastic jugs, crates, totes, drums	Hallways, classrooms, public spaces - empty containers from cleaning and maintenance. Cafeteria – bulk food containers. Washrooms - empty containers from soaps.
LDPE (#4) plastic film	Administrative area – mainly shrink wrap packaging from goods.
Polystyrene (#6)	Cafeteria or from outside sources. Packaging chips, foam inserts in boxes in office, administrative, hallways, classrooms, and public spaces.
Organics	Most food waste is produced in food service & cafeteria. Some is generated in office & administrative areas.
Boxboard shoe boxes, cereal boxes, etc.	Small quantities generated.
Glossy magazines, catalogues, flyers	Produced mainly in the offices – from subscriptions or general mail. 2.7 Tonnes Fewer Yellow Pages on Campus program.
Wood	Residential area mainly.
Steel	Small quantities generated.
Drywall	Generated during renovations – taken away by contractors.
Skids	Small quantities generated (collected with wood).
Paper towels	Generated in washrooms, hallways, classrooms, public spaces.
Printer cartridges	Generated in classroom, office and administrative.
IT equipment/audio-visual equipment	IT or AV equipment is leased/old equipment removed by contractor.
Furniture	Surplus furniture is stored / reused; broken furniture is disposed.
Building/renovation material	Generated during renovations – taken away by contractors.
Disposable take out food packaging	Cafeteria or from outside sources. Generated in offices/cafeteria.
Cell phones	Collected with IT equipment.
Diapers	Small quantities generated.
Clothing/textiles	Small quantities generated.
Other:	

**Note:** When completing this form, write “n/a” in the columns where the entity will not produce any waste for a category of waste.

#### IV. MANAGEMENT OF WASTE

For each category of waste listed below, indicate which waste items will be disposed or reused/recycled and how each item will be managed at the entity(ies).

Category	Waste to be Disposed	Reused or Recycled Waste
Aluminum food and beverage cans	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Cardboard	Some may end up in the garbage.	Broken down/placed in recycling bin.
Fine paper	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Glass food and beverage bottles/jars	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Newsprint	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Steel food and beverage cans	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
PET (#1) plastic food and beverage bottles	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
HDPE (#2) plastic jugs, crates, totes, drums	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
LDPE (#4) plastic film	Some may end up in the garbage.	No program implemented
Polystyrene (#6)	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Organics	Some may end up in the garbage.	Organics compost program implemented
Boxboard shoe boxes, cereal boxes, etc.	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Glossy magazines, catalogues, flyers	Some may end up in the garbage.	Collected from receptacles and emptied into recycling carts.
Wood		Wood recycling program implemented
Steel		Collected from production area and placed into scrap metal bins located throughout the plant.
Drywall	Taken away by contractors.	
Skids		Reused where possible or recycled
Paper towels	Place into general garbage bin.	
Printer cartridges		Recycled via reuse program.
IT equipment/audio-visual equipment	N/A (removed by contractor).	
Furniture		Good condition - stored for reuse.
Building/renovation material	N/A (removed by contractor).	
Disposable take out food packaging	Place into general garbage bin.	
Cell phones		Recycled with electronics / reused.
Diapers	Place into general garbage bin.	
Clothing/textiles	Students place in garbage bins.	
Other:		

**Note:** When completing this form, write “n/a” in the columns where the entity will not produce any waste for a category of waste.

**V. ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY**

Categories of Waste	Estimated Amount of Waste Produced kgs or tonnes (t)											
	Generated			Reused			Recycled			Disposed		
	"A" Base Year	"B" * Current Year	"C" * Change (A-B)	"A" Base Year	"B" * Current Year	"C" * Change (A-B)	"A" Base Year	"B" * Current Year	"C" * Change (A-B)	"A" Base Year	"B" * Current Year	"C" * Change (A-B)
Aluminum food and beverage cans	80.77	62.43	18.35			0.00	42.80	34.18	8.62	37.97	28.25	9.73
Cardboard	305.27	375.77	-70.50			0.00	295.53	277.10	18.43	9.74	98.67	-88.93
Fine paper	734.19	842.13	-107.94			0.00	658.99	624.34	34.65	75.20	217.79	-142.59
Glass food and beverage bottles/jars	9.71	15.65	-5.94			0.00	2.12	10.00	-7.88	7.59	5.65	1.95
Newsprint	135.09	141.31	-6.22			0.00	116.29	86.87	29.43	18.80	54.45	-35.65
Steel food and beverage cans	0.00	0.00	0.00			0.00			0.00			0.00
PET (#1) plastic food and beverage bottles	277.52	225.01	52.51			0.00	171.20	145.92	25.28	106.32	79.09	27.23
HDPE (#2) plastic jugs, crates, totes, drums	14.74	38.47	-23.73			0.00			0.00	14.74	38.47	-23.73
LDPE (#4) plastic film	27.50	37.61	-10.11			0.00			0.00	27.50	37.61	-10.11
Polystyrene (#6)	41.92	44.41	-2.49			0.00	4.08	4.10	-0.02	37.84	40.31	-2.47
Organics	1,511.73	1,453.01	58.72			0.00	1,084.44	1,084.40	0.04	427.29	368.61	58.68
Boxboard shoe boxes, cereal boxes, etc.	0.00	0.00	0.00			0.00			0.00			0.00
Glossy magazines, catalogues, flyers	0.00	0.00	0.00			0.00			0.00			0.00
Wood	140.41	139.80	0.61			0.00	139.46	119.00	20.46	0.95	20.80	-19.85
Steel	101.62	78.73	22.89			0.00	97.35	75.00	22.35	4.27	3.73	0.54
Drywall	0.00	0.00	0.00			0.00			0.00			0.00
Skids	0.00	0.00	0.00			0.00			0.00			0.00
Paper towels	352.79	410.17	-57.38			0.00	119.43	119.00	0.43	233.36	291.17	-57.81
Printer cartridges	0.00	0.00	0.00			0.00			0.00			0.00
IT equipment/audio-visual equipment	83.51	37.66	45.85			0.00	66.60	34.50	32.10	16.91	3.16	13.75
Furniture	197.70	0.00	197.70	197.70		197.70			0.00			0.00
Building/renovation material	371.04	520.00	-148.96			0.00	371.04	520.00	-148.96			0.00
Disposable take out food packaging	52.27	73.53	-21.26			0.00	11.04	11.00	0.04	41.23	62.53	-21.30
Cell phones	0.00	0.00	0.00			0.00			0.00			0.00
Diapers	0.00	0.00	0.00			0.00			0.00			0.00
Clothing/textiles	0.00	0.00	0.00			0.00			0.00			0.00
Other	1,150.39	1,317.10	-166.71		118.20	-118.20	432.61	893.30	-460.69	717.78	305.60	412.18
<b>Total</b>	<b>5,588.18</b>	<b>5,812.79</b>	<b>-224.61</b>	<b>197.70</b>	<b>118.20</b>	<b>79.50</b>	<b>3,612.98</b>	<b>4,038.70</b>	<b>-425.72</b>	<b>1,777.50</b>	<b>1,655.89</b>	<b>121.61</b>
<b>Percent Change (total C ÷ total A x 100 )</b>			<b>-4.02%</b>			<b>40.21%</b>			<b>-11.78%</b>			<b>6.84%</b>

**Note:** When completing this form, write "n/a" in the "Estimated Amount of Waste Produced" column where the entity will not produce any waste for a category of waste.

\* Fill out these columns each year following the initial waste audit or baseline year to determine the progress that is being made by your waste reduction program.



**VI. EXTENT TO WHICH MATERIALS OR PRODUCTS USED OR SOLD BY THE ENTITY CONSIST OF RECYCLED OR REUSED MATERIALS OR PRODUCTS**

Please answer the following questions:

1. Do you have a management policy in place that promotes the purchasing and/or use of materials or products that consist of recycled and/or reused materials or products? If yes, please describe.

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2. Do you have plans to increase the extent to which materials or products used or sold\* consist of recycled or reused materials or products? If yes, please describe.

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\* Information regarding materials or products “sold” that consist of recycled or reused materials or products is only required from owner(s) of retail shopping establishments and the owner(s) or operator(s) of large manufacturing establishments.

Please attach any additional page(s) as required to answer the above questions.

**I hereby certify that the information provided in this Report of Waste Audit is complete and correct.**

**Signature of authorized official:**

**Title:**

**Date:**

***APPENDIX 4***



### III. PLANS TO REDUCE, REUSE AND RECYCLE WASTE

For each category of waste described in Part V of "Report of a Waste Audit" (on which this plan is based), explain what your plans are to Reduce, Reuse and Recycle the waste, including: 1) how the waste will be source separated at the establishment, and 2) the programs to reduce, reuse and recycle all source separated waste.	
<b>Waste Category</b> (as stated in Part V of your "Report of a Waste Audit")	<b>Source Separation and 3Rs Program</b>
Aluminum food and beverage cans	Recycling receptacles will continue to be located in key areas on all buildings. Add new labels with text and pictures to all recycling receptacles.
Cardboard	Students will continue to be asked to break down boxes and place into recycling bins. A check will be made to ensure no cardboard is placed with waste.
Fine paper	Reduce: students will be encouraged to print on both sides of each sheet. Reuse: Paper with print only on one side will be used for note pads/scrap. Recycle: Desk side paper bins and mini garbage bins will be provided at each desk. Cleaners will empty receptacles into centralized containers. Cleaners will empty centralized containers into carts at loading area for collection by recycling company.
Glass food and beverage bottles/jars	(same as Aluminum food and beverage cans)
Newsprint	(same as Aluminum food and beverage cans)
Steel food and beverage cans	(same as Aluminum food and beverage cans)
PET (#1) plastic food and beverage bottles	(same as Aluminum food and beverage cans)
Polystyrene (#6)	(same as Aluminum food and beverage cans)
Organics	Organics programs implemented in all cafeteria areas.
Boxboard shoe boxes, cereal boxes, etc.	(collected together with newspaper)
Glossy magazines, catalogues, flyers	(collected together with newspaper)
Paper towels	Paper towel program implemented. Will look into expanding collection.
Printer cartridges	Continue to divert via recycling program.
IT equipment/audio-visual equipment	Will speak to company with lease contract to ensure that old equipment is being reused or recycled properly.
Furniture	Furniture in good condition is being reused. Will look into donation of damaged furniture for repair and reuse.
Building/renovation material	Add clause to building contracts that all renovation waste that is removed from the building must be source separated and diverted as reasonably possible.
Disposable take out food packaging	Small quantities generated.
Clothing/textiles	Small quantities generated.

### IV. RESPONSIBILITY FOR IMPLEMENTING THE WASTE REDUCTION WORK PLAN

Identify who is responsible for implementing the Waste Reduction Work Plan at your entity(ies). If more than one person is responsible for implementation, identify each person who is responsible and indicate the part of the Waste Reduction Work Plan that each person is responsible for implementing.		
<b>Name of Person</b>	<b>Responsibility</b>	<b>Telephone #</b>

**V. TIMETABLE FOR IMPLEMENTING WASTE REDUCTION WORK PLAN**

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.

<b>Source Separation and 3Rs Program</b>	<b>Schedule for Completion</b>
Aluminum food and beverage cans	Develop new text and picture labels for all recycling receptacles.
Cardboard	Immediately send out reminder to students about breaking down cardboard and reminder to cleaners to ensure all cardboard is recycled.
Fine paper	Immediately send out reminder to students about recycling paper and reminder to cleaners to ensure paper is recycled.
Glass food and beverage bottles/jars	Same as for aluminum containers.
Newsprint	Same as for aluminum containers.
Steel food and beverage cans	Same as for aluminum containers.
PET (#1) plastic food and beverage bottles	Same as for aluminum containers.
HDPE (#2) plastic jugs, crates, totes, drums	
LDPE (#4) plastic film	Same as for aluminum containers.
Polystyrene (#6)	Small quantities generated.
Organics	Will contact waste management company if program can be implemented.
Boxboard shoe boxes, cereal boxes, etc.	Same as for aluminum containers.
Glossy magazines, catalogues, flyers	2.7 Tonnes Fewer Yellow Pages on Campus program starting September 2010.
Skids	Continue recycling program.
Paper towels	(will coordinate with organics, if possible).
Printer cartridges	Continue reuse program.
IT equipment/audio-visual equipment	Continue recycling/reusing program.
Furniture	Continue recycling/reusing program.
Building/renovation material	Continue recycling program (picked-up by contractor).
Disposable take out food packaging	Small quantities generated.
Clothing/textiles	Small quantities generated.

**VI. COMMUNICATION TO STAFF, CUSTOMERS, GUESTS AND VISITORS**

Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students:

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## VII. ESTIMATED WASTE PRODUCED BY MATERIAL TYPE AND THE PROJECTED AMOUNT

Material Categories (as stated in Part III)	Estimated Annual Waste Produced * (kgs or tonnes)	Name of Proposed 3Rs Program (as stated in Part III)	Projections to Reduce, Reuse or Recycle Waste (kgs or tonnes)			Estimated Annual Amount to be Diverted ** (%)
			Reduce	Reuse	Recycle	
Aluminum food and beverage cans	62.43	Bottles & Can Program		0.00	34.18	55%
Cardboard	375.77	Cardboard Program		0.00	277.10	74%
Fine paper	842.13	Paper Program		0.00	624.34	74%
Glass food and beverage bottles/jars	15.65	Bottles & Can Program		0.00	10.00	64%
Newsprint	141.31	Newsprint program		0.00	86.87	61%
Steel food and beverage cans	0.00	Bottles & Can Program		0.00	0.00	n/a
PET (#1) plastic food and beverage bottles	225.01	Bottles & Can Program		0.00	145.92	65%
HDPE (#2) plastic jugs, crates, totes, drums	38.47	n/a		0.00	0.00	n/a
LDPE (#4) plastic film	37.61	n/a		0.00	0.00	n/a
Polystyrene (#6)	44.41	Polystyrene Program		0.00	4.10	9%
Organics	1,453.01	Organics program		0.00	1,084.40	75%
Boxboard shoe boxes, cereal boxes, etc.	0.00	Paper Program		0.00	0.00	n/a
Glossy magazines, catalogues, flyers	0.00	Paper Program		0.00	0.00	n/a
Wood	139.80	Wood Program		0.00	119.00	85%
Steel	78.73	Scrap Metal Program		0.00	75.00	95%
Drywall	0.00	Renovation Material Program		0.00	0.00	n/a
Skids	0.00	Wood Program		0.00	0.00	n/a
Paper towels	410.17	Paper Towels Program		0.00	119.00	29%
Printer cartridges	0.00	Printer cartridges Program		0.00	0.00	n/a
IT equipment/audio-visual equipment	37.66	IT Program		0.00	34.50	92%
Furniture	0.00	Furniture Program		0.00	0.00	0%
Building/renovation material	520.00	Renovation Material Program		0.00	520.00	100%
Disposable take out food packaging	73.53	n/a		0.00	11.00	n/a
Cell phones	0.00	IT Program		0.00	0.00	n/a
Diapers	0.00	General Garbage Bin.		0.00	0.00	n/a
Clothing/textiles	0.00	Small quantities generated.		0.00	0.00	n/a
Other	1,317.10	Non-Recyclables		118.20	893.30	77%

\* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed

\*\* Estimated Waste Diversion Rate = Amount of Waste Diverted (3Rs) ÷ Estimated Waste Produced x 100%

<b>I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.</b>		
<b>Signature of authorized official:</b>	<b>Title:</b>	<b>Date:</b>

*APPENDIX 5*

## UofT Waste Audit Winter 2012 - Compactor Summary

### **February 6, 2012: Load #1 – New College, 300 Huron Street**

Amidst the garbage the following items were found:

- Styrofoam (blocks & chips)
- Full bags coffee cups
- Full bags mixed papers
- Cardboard (including pizza boxes)
- Full bags mixed containers
- Full bags paper towels
- Some black garbage bags

### **February 6, 2012: Load #2 – Sidney Smith Hall, 100 St. George Street**

Amidst the garbage the following items were found:

- Cardboard boxes (including pizza boxes)
- Full bags mixed papers
- Full bags mixed containers
- Styrofoam (blocks)
- Full bags coffee cups
- Lots of Plastic and Aluminum trays
- Large plastic pails

### **February 7, 2012: Load #1 – OISE, 252 Bloor Street West**

Amidst the garbage the following items were found:

- Styrofoam (blocks & full bags of chips)
- Full bags mixed containers
- Full bags coffee cups
- Cardboard (including pizza boxes)
- Full bags mixed papers

### **February 7, 2012: Load #2 – BCIT, 40 St. George Street**

Amidst the garbage the following items were found:

- Full bags mixed containers
- Styrofoam (Food containers, Bags of packing chips)
- Plastic films (sheets of bubble wrap)
- Full bags of mixed papers

### **February 8, 2012: Load #1 – Robarts Library, 369 Huron Street**

Amidst the garbage the following items were found:

- Cardboard
- Full bags mixed papers
- Full bags coffee cups
- Considerable amounts of Styrofoam food containers

### **February 8, 2012: Load #2 – CCBR, 160 College Street**

Amidst the garbage the following items were found:

- Decontaminated broken glass buckets
- Bio yellow buckets (lots)
- Full bags of plastic films
- Full bags of Styrofoam packaging
- Cardboard
- Full bags mixed papers
- Full bags mixed containers



## UofT Waste Audit Spring 2011 - Compactor Summary

### **February 9, 2012: Load #1 – Earth Science, 33 Willcocks Street**

Amidst the garbage the following items were found:

- Styrofoam (bagged & loose)
- Full bags of coffee cups
- Cardboard
- Large plastic trays
- Full bags mixed papers

### **February 9, 2012: Load #2 – Sanford Fleming Building, 10 King's College Road**

Amidst the garbage the following items were found:

- Pine trees (4)
- Scrap woods (2x4's)
- Plastic pails
- Cardboard (including pizza boxes)
- Full bags of coffee cups
- Full bags mixed papers
- Full bags mixed containers
- Styrofoam (bagged & loose)

### **February 10, 2012: Load #1 – Faculty of Dentistry, 124 Edward Street**

Amidst the garbage the following items were found:

- Plastic pails
- Cardboard
- Full bags of coffee cups
- Full bags of mixed containers (few)
- Full bags Styrofoam cups

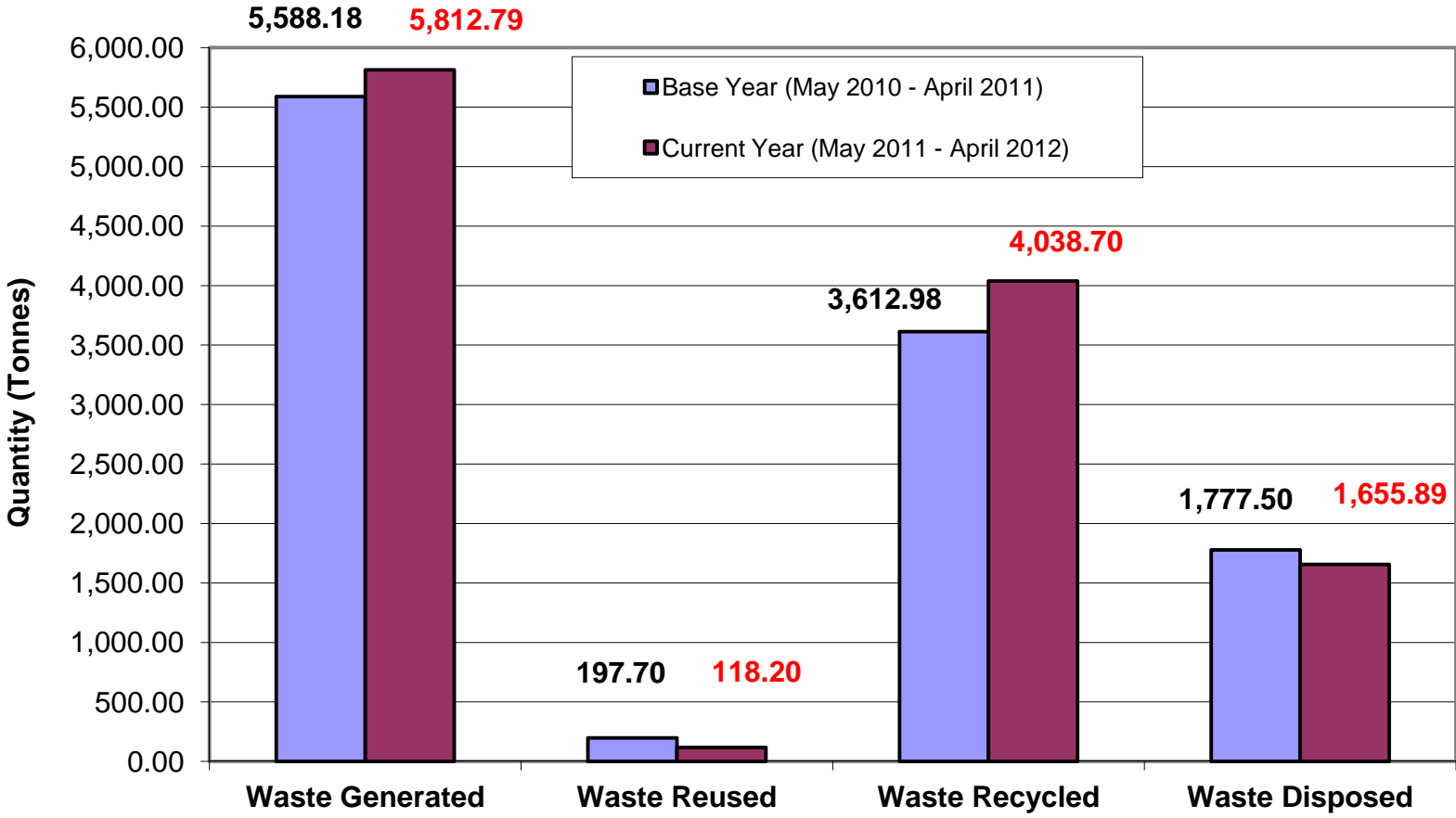
### **February 10, 2012: Load #2 – Connaught Labs (Open Bin), 1 Spadina Circle**

Amidst the garbage the following items were found:

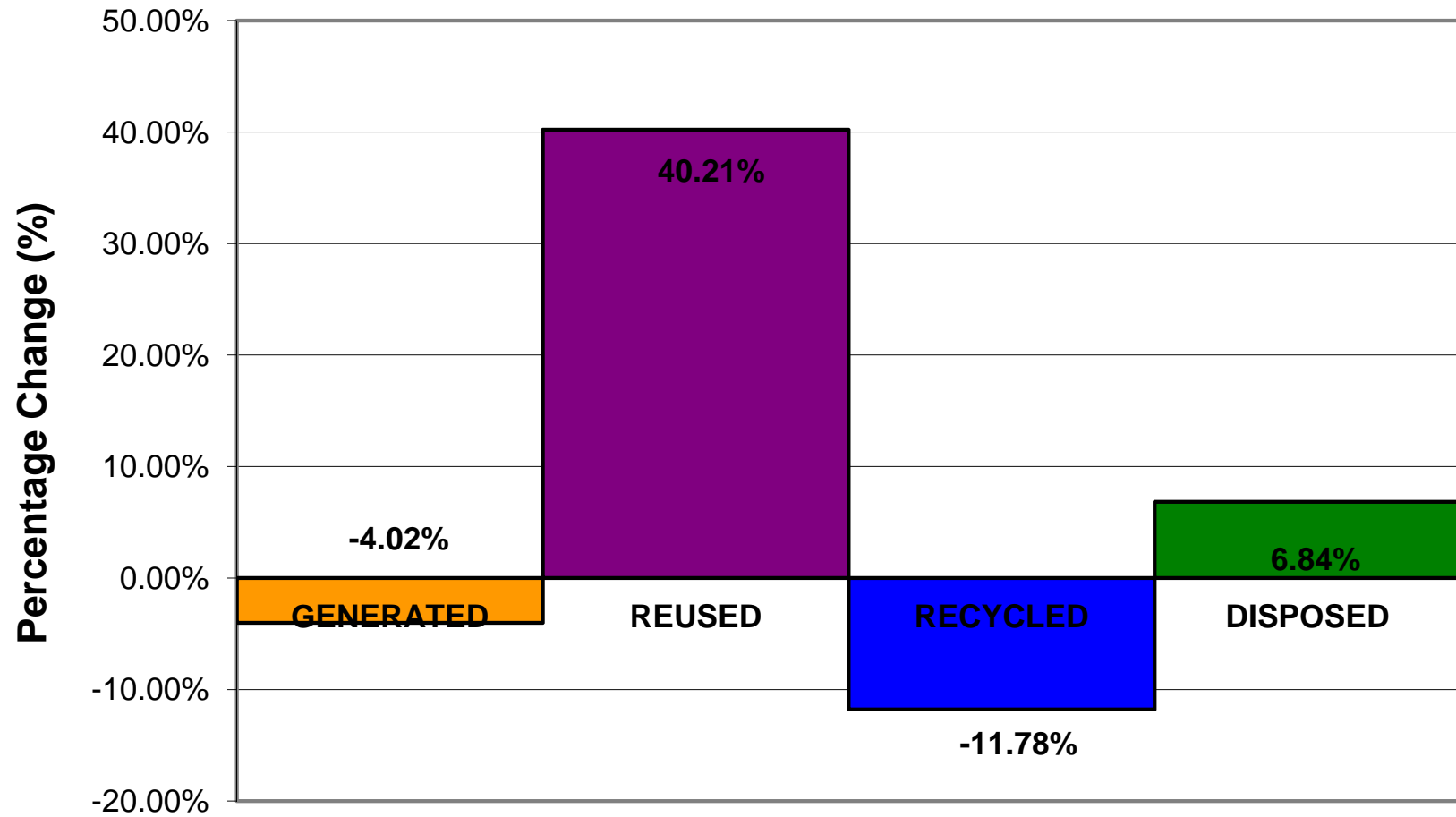
- Full bags mixed papers
- Cardboard
- Full bags of Styrofoam (food containers & others)
- Blue rubber floor padding
- Full bags coffee cups
- Chair

## **FIGURES**

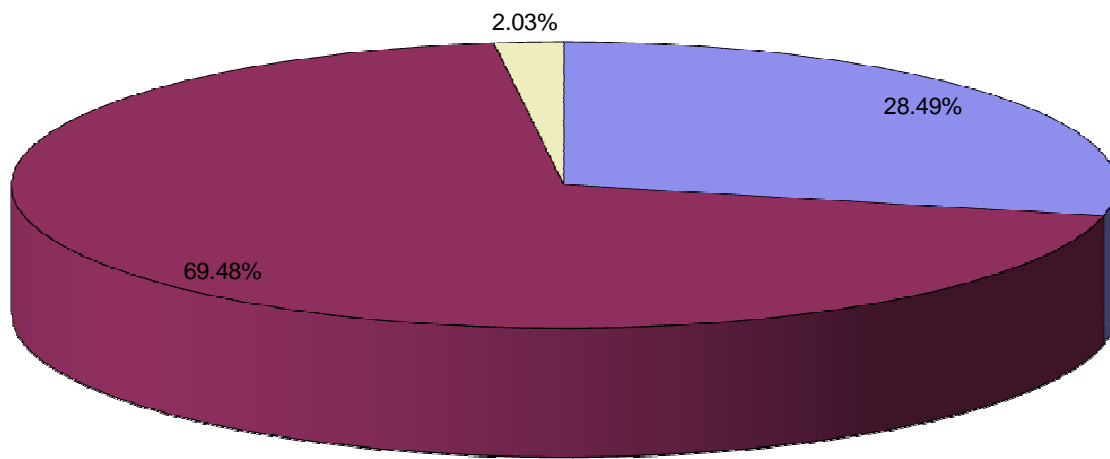
**Figure 1: Waste Audit Summary  
University of Toronto**



**Figure 2: Waste Increase/Decrease (%)**  
**University of Toronto**  
**May 2011 - April 2012**



**Figure 3 - Waste Diversion Summary (%)**  
University of Toronto  
May 2011- April 2012



**Figure 4 - Recycled Waste Diversion Summary (%)**  
**University of Toronto**  
**May 2011 - April 2012**

