

SOLID NON-HAZARDOUS WASTE AUDIT

(MAY 2007-APRIL 2008)

**UNIVERSITY OF TORONTO
TORONTO, ONTARIO**

**ENVIROVISION INC.
DECEMBER 2008**

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1.0 INTRODUCTION

The University of Toronto (“U of T”) 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 U of T resulting from existing waste reduction, reuse, and recycling programs,
- to identify and quantify the composition and point of generation of waste at U of T, and
- to identify any additional opportunities for waste reduction and diversion, which may exist at U of T.

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 U of T, 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 Styrofoam, mixed containers and specific items at the swap shop 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 during the fall of 2008; therefore, Envirovision considers that this constitutes an indicative sample of the activities and waste types generated during the regular school year.

The total waste generated by UofT on any given day is approximately 5,675 kg. The total waste sampled during the fall of 2008 was 575.39 kg, which is approximately 10% of the total waste generated on a typical day.

The compactor scale loads of waste were audited at the Queensway Transfer Station located at 1400 The Queensway, Toronto Ontario, with emphasis placed on qualitative observation and large and special items that were perhaps overlooked at the 24 hours sample level in the buildings. Observations were made for furniture, electronics scrap metals, construction and contractor waste, and source separated recyclables that should not have been thrown in the garbage by staff. Many pictures and even some weights were noted as well as other interesting observations.

Annual tonnages supplied by the U of T were re-checked to the best of our ability. Spot check weights were also collected for bags of styrofoam, mixed containers and specific items at the swap shop.

2.2 Sources of Waste Generation

A review of U of T 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 U of T 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 2007 to April 2008 were provided by U of T.

The solid waste generated at U of T'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
Anthropology Building (AP)	19 Russell Street Toronto M5S 2S2		x	x	x	x	
Astronomy & Astrophysics Building (AB)	50 St. George Street Toronto M5S 3H4	x		x	x		
Banting Institute (BI)	100 College Street Toronto M5G 1L9		x	x		x	x
Borden Building South (SB)	487 Spadina Avenue Toronto M5P 2J7	x		x			
Exam Centre (EX)	255 McCaul Street Toronto M5T 1W7		x	x	x		
Faculty of Education Bloor Street West-371 (FE)	371 Bloor Street West Toronto M5S 2R7	x	x			x	
Flavelle House (LW)	78 Queen's Park Toronto M5S 2C5		x	x	x		x
Huron Street-215 (HU)	215 Huron Street Toronto M5S 1A2	x	x	x	x		
Joseph L. Rotman School of Management (RT)	105 St. George Street Toronto M5S 3E6	x	x	x	x		
Old Admin Bldg (Board of Ed) (OA)	263 McCaul Street Toronto M5T 1W7	x	x	x	x		
Spadina Crescent – 1 (SP)	1 Spadina Crescent Toronto M5S 2J5	x	x	x		x	
Wallberg Building (WB)	184-200 College Street Toronto M56 3E5	x	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 the fall of 2008, the areas generating most of the waste by weight are as follow:

Name	Address	Quantity (kilogram)	Quantity (%)
Wallberg Building (WB)	184-200 College Street Toronto M56 3E5	130.1	22.61%
Joseph L. Rotman School of Management (RT)	105 St. George Street Toronto M5S 3E6	106.9	18.58%
Flavelle House (LW)	78 Queen's Park Toronto M5S 2C5	66.3	11.52%
Old Admin Bldg (Board of Ed) (OA)	263 McCaul Street Toronto M5T 1W7	64.04	11.13%
Banting Institute (BI)	100 College Street Toronto M5G 1L9	53.95	9.38%
Exam Centre (EX)	255 McCaul Street Toronto M5T 1W7	49.7	8.64%
Huron Street-215 (HU)	215 Huron Street Toronto M5S 1A2	31.8	5.53%
Faculty of Education Bloor Street West-371 (FE)	371 Bloor Street West Toronto M5S 2R7	20.2	3.51%
Anthropology Building (AP)	19 Russell Street Toronto M5S 2S2	19.4	3.37%
Astronomy & Astrophysics Building (AB)	50 St. George Street Toronto M5S 3H4	12.35	2.15%
Borden Building South (SB)	487 Spadina Avenue Toronto M5P 2J7	7.45	1.29%
Spadina Crescent – 1 (SP)	1 Spadina Crescent Toronto M5S 2J5	7.45	1.29%
Outdoors Depots	---	5.75	1.00%
Total		575.39	100%

During the waste audit, a total of approximately 575.39kilograms of waste was audited. Spread sheets showing the individual waste categories and the weight of each category generated from all areas of U of T are included in Appendix 1.

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

Name	Address	Office & Administration %	Hallways, Classrooms, Public Spaces %	Washrooms %	Food Services / Cafeteria %	Labs %	Other %
Anthropology Building (AP)	19 Russell Street Toronto M5S 2S2		39.4	38.4	6.2	16.0	
Astronomy & Astrophysics Building (AB)	50 St. George Street Toronto M5S 3H4	62.3		20.2	17.4		
Banting Institute (BI)	100 College Street Toronto M5G 1L9		53.1	18.7		2.6	25.6
Borden Building South (SB)	487 Spadina Avenue Toronto M5P 2J7	85.9		14.1			
Exam Centre (EX)	255 McCaul Street Toronto M5T 1W7		20.9	57.9	21.1		
Flavelle House (LW)	78 Queen's Park Toronto M5S 2C5		75.9	15.5	1.4		7.2
Huron Street-215 (HU)	215 Huron Street Toronto M5S 1A2	17.6	22.5	23.0	36.9		
Joseph L. Rotman School of Management (RT)	105 St. George Street Toronto M5S 3E6	8.9	74.5	10.9	5.8		
Old Admin Bldg (Board of Ed) (OA)	263 McCaul Street Toronto M5T 1W7	19.4	68.7	8.0	3.9		
Faculty of Education Bloor Street West-371 (FE)	371 Bloor Street West Toronto M5S 2R7	34.7	21.3			8.9	
Spadina Crescent - 1 (SP)	1 Spadina Crescent Toronto M5S 2J5	12.1	20.1	15.4		32.9	
Wallberg Building (WB)	184-200 College Street Toronto M56 3E5	23.0	39.7	12.6		12.5	12.2

Based on the total amount of waste sorted, the largest primary categories of waste generated during the audit were:

Name	Address	Mixed Containers %	Mixed Paper %	Paper Towels %	Cardboard %	Organic Waste %	Non-Recyclable %
Anthropology Building (AP)	19 Russell Street Toronto M5S 2S2	3.9	2.3	37.9	2.3	2.8	49.5
Astronomy & Astrophysics Building (AB)	50 St. George Street Toronto M5S 3H4	16.6	4.9	17.0		25.1	34.4
Banting Institute (BI)	100 College Street Toronto M5G 1L9	12.8	8.9	12.3	6.7	27.2	12.8
Borden Building South (SB)	487 Spadina Avenue Toronto M5P 2J7	2.0	4.7	13.4	0.7	4.7	59.7
Exam Centre (EX)	255 McCaul Street Toronto M5T 1W7	3.5	0.5	49.0		34.8	11.4
Flavelle House (LW)	78 Queen's Park Toronto M5S 2C5	1.6	0.7	15.1		35.3	46.6
Huron Street-215 (HU)	215 Huron Street Toronto M5S 1A2	17.1	5.3	21.4		28.5	23.1
Joseph L. Rotman School of Management (RT)	105 St. George Street Toronto M5S 3E6	16.8	10.3	12.1	3.5	15.7	40
Old Admin Bldg (Board of Ed) (OA)	263 McCaul Street Toronto M5T 1W7	10.9	20.5	9.4		53.8	5.1
Faculty of Education Bloor Street West-371 (FE)	371 Bloor Street West Toronto M5S 2R7	15.6	7.7	5.2	1.2	23.8	45.0
Spadina Crescent – 1 (SP)	1 Spadina Crescent Toronto M5S 2J5	3.4	12.1	20.8		23.5	36.9
Wallberg Building (WB)	184-200 College Street Toronto M56 3E5	4.1	18.6	14.2	0.8	37.4	7.2

NOTES FOR AUDITS OF ON-SITE OUTDOOR DEPOTS

October 21, 2008

- *Depot at Russell and St. George*

Waste Category	Waste Compartment	Mixed Container Compartment	Mixed Paper Compartment	Polystyrene Compartment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.10	1.55		0.40
Mixed Papers	0.20		0.75	0.95
Cardboard			0.15	
Organic Waste	0.45			0.50
Styrofoam	0.05	0.05		0.75
Plastic Wrap				0.05
Non recyclable	2.40	0.10		0.95

- *Depot on Galbraith Road*

Waste Category	Waste Compartment	Mixed Container Compartment	Mixed Paper Compartment	Polystyrene Compartment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.45	3.30		0.45
Mixed Papers	0.15	0.30	2.45	0.75
Styrofoam	0.05			0.50
Non recyclable	1.90	0.15		0.60

Please refer to notes and photographs attached as Appendix 4.

3.0 DIVERSION PROGRAMS & WASTE MANAGEMENT SYSTEMS

3.1 Waste Diversion Programs

Recycling and reuse programs have been initiated at U of T for the following materials:

Recycled

- Mixed Fiber (mixed paper) and paper towels
- Metal
- Wood
- Yard Waste
- Pallets
- Corrugated Cardboard
- Toner Cartridge
- Batteries
- Fluorescent Lamps
- Foam Packaging (Polystyrene)
- Organics (Food Waste)
- Mixed Containers (Bottles and Cans)
- Tires
- Soil
- e-Waste (electronic equipment), Special Plastics and Transparencies
- Concrete

Reused

- Furniture, equipment and supplies, office supplies, clothing, books, etc.

The amount of waste diverted from landfill due to the above initiatives is presented in Table 1 entitled “*Waste Diversion Summary (May 2007-April 2008)*” and found on the following page.

Table 1: Waste Diversion Summary (May 2007-April 2008)

Waste Category	Quantity (metric tonnes) ^A
Recycled	
Mixed Paper	926.91
Metal	100.80
Wood	182.29
Yard Waste	81.29
Pallets	17.04
Cardboard	319.35
Toner Cartridge	0.41
Batteries	1.64
Fluorescents	7.20
Polystyrene	4.08
Organics	1,274.18
Bottles and Cans	256.48
e-Waste and special plastics	46.96
Tires	0.00
Concrete	12.00
Soil	27.24
Total Recycled	3,257.87
Reused	
Equipment and Supplies	90.64
Total Reused	90.64
Total Recycled + Reused	3,348.51

A - Based on the information provided by U of T.

3.2 Waste Disposal Systems

Approximately 2070.76 tonnes of general waste was generated by U of T from May 2007 to April 2008.

3.3 Current Annual Diversion Rate

Table 2: Waste Management Summary

Waste Management	Quantity(metric tonnes)	Percent (%)
Disposed (general waste)	2,070.76	38.21
Reused	90.64	1.67
Recycled	3,257.87	60.12
Generated = Disposed + Reused + Recycled	5,419.27	100.0

A - Based on the information provided by U of T.

Based on the total amounts of waste generated and materials recycled and reused, the current annual diversion rate through existing programs at U of T is 62%. This percentage could be increased if U of T chose to include other reuse programs such as milk, egg and bread trays, etc. To be consistent with past record keeping these considerations are not part of the scope of this study. Also, there are countless vendors and departments in such a large community as U of T that it is difficult to track individual reuse programs although we acknowledge that they do exist. Furthermore, the projection section of the waste reduction and recycling workplan summary has been left blank as per discussions with U of T staff so that they may fill it in as appropriate to their objectives (see Appendix 3).

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 U of T, these issues were discussed at various site meetings and involved various people at the departmental, faculty, facility and business unit level.

4.0 CONCLUSIONS AND RECOMMENDATIONS

U of T 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 U of T, the following conclusions and recommendations are intended to maximize U of T's waste diversion potential:

1. From May 2007 to April 2008, U of T sent approximately 2,071 metric tonnes of waste to landfill and diverted approximately 3,349 metric tonnes of waste from landfill through recycling and reuse. This represents a diversion rate of approximately 62%.
2. According to *O. Reg. 102/94*, the Waste Audit Summary (Appendix 2) or the Waste Reduction Workplan (Appendix 3) must be posted at U of T 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 U of T's employees/students who may request 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 eliminating 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 U of T, 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

Waste Audit 24-Hour Sample Data Summary

Client: University of Toronto
Job Site: St. George Campus Waste Composition Summary
Date: Sampling occurred in October 2008 as follows:

		Date	Total Sample Size	
1	Anthropology (19 Russell St)	Oct. 21/08	19.40	3.37%
2	Astronomy (50 St. George St)	Oct. 21/08	12.35	2.15%
3	South Borden (487 Spadina)	Oct. 22/08	7.45	1.29%
4	1 Spadina Cres	Oct. 22/08	7.45	1.29%
5	215 Huron St	Oct. 22/08	31.80	5.53%
6	Rotman School of Managemnt (105 St George St)	Oct. 22/08	106.90	18.58%
7	Faculty of Education (UTS)	Oct. 22/08	20.20	3.51%
8	Flavelle House, Faculty of Law (78 Queen's Park)	Oct. 23/08	66.30	11.52%
9	263 McCaul	Oct. 23/08	64.05	11.13%
10	255 McCaul	Oct. 23/08	49.70	8.64%
11	Walberg Building	Oct. 24/08	130.10	22.61%
12	Banting (100 College St)	Oct. 24/08	53.95	9.38%
13	Outdoor Depots	Oct. 21/08	5.75	1.00%
Total Sample:			575.40	100%

Table: Overall Summary

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Outdoor Recycling Depot		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	79.50		285.15		101.75		35.15		32.15		35.95		5.75		575.40	
Total Percent of Sample (in %):	13.8%		49.6%		17.7%		6.1%		5.6%		6.2%		1.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%			kg	%
Mixed Containers	10.75	13.5%	29.20	10.2%	3.15	3.1%	2.70	7.7%	4.10	12.8%	1.90	5.3%	0.55	3.1%	52.35	9.1%
Mixed Papers	25.85	32.5%	28.40	10.0%	1.25	1.2%	0.85	2.4%	1.80	5.6%	1.25	3.5%	0.35	6.3%	59.75	10.4%
Paper Towels	0.30	0.4%	6.90	2.4%	87.90	86.4%	0.10	0.3%	3.00	9.3%	0.05	0.1%	0.00	0.0%	98.25	17.1%
Cardboard	1.40	1.8%	7.15	2.5%	0.00	0.0%	0.00	0.0%	0.55	1.7%	0.00	0.0%	0.00	0.0%	9.10	1.6%
Organic Waste (if applicable)	14.70	18.5%	86.75	30.4%	6.35	6.2%	26.15	74.4%	11.05	34.4%	29.80	82.9%	0.45	14.1%	175.25	30.5%
Large items	0.00	0.0%	11.20	3.9%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	11.20	1.9%
Electronics/e-Waste	0.25	0.3%	1.10	0.4%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	1.35	0.2%
Scrap metal	0.95	1.2%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.95	0.2%
Wood	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%
Styrofoam	0.45	0.6%	7.55	2.6%	0.15	0.1%	0.55	1.6%	0.20	0.6%	0.20	0.6%	0.10	1.6%	9.20	1.6%
Lab Waste	0.00	0.0%	6.20	2.2%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	6.20	1.1%
Plastic Wrap	2.60	3.3%	1.05	0.4%	0.00	0.0%	0.05	0.1%	2.60	8.1%	0.00	0.0%	0.00	0.0%	6.30	1.1%
Misc./Other	0.10	0.1%	4.50	1.6%	0.00	0.0%	0.00	0.0%	0.20	0.6%	0.00	0.0%	0.00	0.0%	4.80	0.8%
Other / Non recyclable	22.15	27.9%	95.15	33.4%	2.95	2.9%	4.75	13.5%	8.65	26.9%	2.75	7.6%	4.30	75.0%	140.70	24.5%
QAQC Check	79.50	100.0%	285.15	100.0%	101.75	100.0%	35.15	100.0%	32.15	100.0%	35.95	100.0%	5.75	100.0%	575.40	100.0%

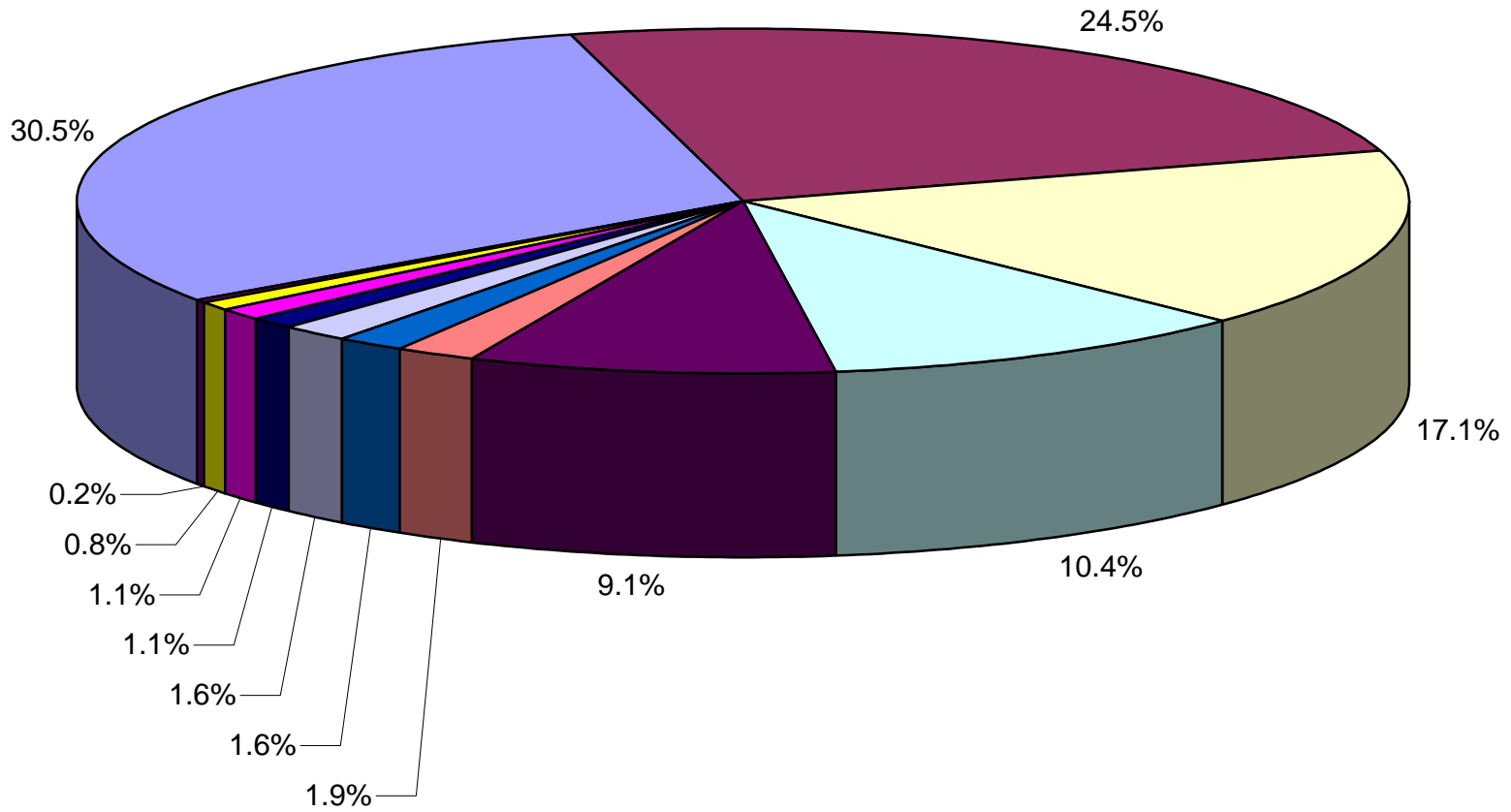
Notes:

Total Weight & Waste Composition

Total Weight of waste shipped off-site: **2070.76** Tonnes <-- UofT to add weight here

Composition	Percent	Tonnes
Organic Waste (if applicable)	30.5%	630.69
Other / Non recyclable	24.5%	506.36
Paper Towels	17.1%	353.58
Mixed Papers	10.4%	215.03
Mixed Containers	9.1%	188.40
Large items	1.9%	40.31
Cardboard	1.6%	32.75
Styrofoam	1.6%	33.11
Lab Waste	1.1%	22.31
Plastic Wrap	1.1%	22.67
Misc./Other	0.8%	17.27
Electronics/e-Waste	0.2%	4.86
Scrap metal	0.2%	3.42
Wood	0.0%	0.00
	100.0%	

**University of Toronto St. George Campus
October 2008 Waste Composition Summary Based on 24 hr Samples**



Organic Waste (if applicable)	Other / Non recyclable	Paper Towels	Mixed Papers
Mixed Containers	Large items	Cardboard	Styrofoam
Lab Waste	Plastic Wrap	Misc./Other	Electronics/e-Waste
Scrap metal			

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: Walberg Building

Date: Oct. 24/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	29.90		51.60		16.40				16.30		15.90		130.10	
Total Percent of Sample (in %):	23.0%		39.7%		12.6%		0.0%		12.5%		12.2%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.80	2.7%	2.10	4.1%	0.05	0.3%			1.80	11.0%	0.60	3.8%	5.35	4.1%
Mixed Papers	22.60	75.6%	0.25	0.5%		0.0%			0.80	4.9%	0.50	3.1%	24.15	18.6%
Paper Towels		0.0%		0.0%	16.20	98.8%			2.30	14.1%		0.0%	18.50	14.2%
Cardboard		0.0%	0.95	1.8%		0.0%			0.10	0.6%		0.0%	1.05	0.8%
Organic Waste (if applicable)	3.60	12.0%	22.90	44.4%		0.0%			7.30	44.8%	14.80	93.1%	48.60	37.4%
Large items (Note 1)		0.0%	11.20	21.7%		0.0%				0.0%		0.0%	11.20	8.6%
Electronics/e-Waste		0.0%		0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Scrap metal	0.20	0.7%		0.0%		0.0%				0.0%		0.0%	0.20	0.2%
Wood		0.0%		0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Styrofoam		0.0%	2.00	3.9%		0.0%			0.05	0.3%		0.0%	2.05	1.6%
Lab Waste		0.0%		0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Plastic Wrap (Note 3)	2.50	8.4%		0.0%		0.0%			2.60	16.0%		0.0%	5.10	3.9%
Misc./Other (Note 2)		0.0%	4.50	8.7%		0.0%				0.0%		0.0%	4.50	3.5%
Other / Non recyclable (1)	0.20	0.7%	7.70	14.9%	0.15	0.9%			1.35	8.3%		0.0%	9.40	7.2%
QAQC Check	29.90	100.0%	51.60	100.0%	16.40	100.0%	0.00	0.0%	16.30	100.0%	15.90	100.0%	130.10	100.0%

General Comments and Observations:

- Note 1: Public space Large Item = Vacuum.
- Note 2: Public space Misc./Other = Clothes.
- Note 3: Plastic Wrap = Large clear plastic bags

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: 255 McCaul

Date: Oct. 23/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):			10.40		28.80		10.50						49.70	
Total Percent of Sample (in %):	0.0%		20.9%		57.9%		21.1%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.25	2.4%	0.20	0.7%	1.30	12.4%					1.75	3.5%
Mixed Papers			0.10	1.0%		0.0%	0.15	1.4%					0.25	0.5%
Paper Towels			0.90	8.7%	23.45	81.4%		0.0%					24.35	49.0%
Cardboard				0.0%		0.0%		0.0%					0.00	0.0%
Organic Waste (if applicable)			4.45	42.8%	4.25	14.8%	8.60	81.9%					17.30	34.8%
Large items				0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste				0.0%		0.0%		0.0%					0.00	0.0%
Scrap metal				0.0%		0.0%		0.0%					0.00	0.0%
Wood				0.0%		0.0%		0.0%					0.00	0.0%
Styrofoam			0.05	0.5%	0.15	0.5%	0.20	1.9%					0.40	0.8%
Lab Waste				0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap				0.0%		0.0%		0.0%					0.00	0.0%
Misc./Other				0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable			4.65	44.7%	0.75	2.6%	0.25	2.4%					5.65	11.4%
QAQC Check	0.00	0.0%	10.40	100.0%	28.80	100.0%	10.50	100.0%	0.00	0.0%	0.00	0.0%	49.70	100.0%

General Comments and Observations:

Note 1:

Note 2:

Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: 263 McCaul

Date: Oct. 23/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	12.45		44.00		5.10		2.50						64.05	
Total Percent of Sample (in %):	19.4%		68.7%		8.0%		3.9%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	3.20	25.7%	3.70	8.4%		0.0%	0.10	4.0%					7.00	10.9%
Mixed Papers	1.50	12.0%	11.60	26.4%	0.05	1.0%		0.0%					13.15	20.5%
Paper Towels		0.0%	1.00	2.3%	4.90	96.1%	0.10	4.0%					6.00	9.4%
Cardboard		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Organic Waste (if applicable)	5.80	46.6%	26.50	60.2%		0.0%	2.10	84.0%					34.40	53.7%
Large items		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Scrap metal		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Wood		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Styrofoam	0.05	0.4%	0.10	0.2%		0.0%	0.10	4.0%					0.25	0.4%
Lab Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Misc./Other		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable	1.90	15.3%	1.10	2.5%	0.15	2.9%	0.10	4.0%					3.25	5.1%
QAQC Check	12.45	100.0%	44.00	100.0%	5.10	100.0%	2.50	100.0%	0.00	0.0%	0.00	0.0%	64.05	100.0%

General Comments and Observations:

- Note 1:
- Note 2:
- Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Flavelle House, Faculty of Law (78 Queen's Park)
Date: Oct. 23/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):			50.30		10.30		0.90				4.80		66.30	
Total Percent of Sample (in %):	0.0%		75.9%		15.5%		1.4%		0.0%		7.2%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.90	1.8%		0.0%	0.10	11.1%			0.05	1.0%	1.05	1.6%
Mixed Papers			0.15	0.3%	0.10	1.0%	0.10	11.1%			0.10	2.1%	0.45	0.7%
Paper Towels				0.0%	10.00	97.1%		0.0%				0.0%	10.00	15.1%
Cardboard				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Organic Waste (if applicable)			19.80	39.4%		0.0%	0.60	66.7%			3.00	62.5%	23.40	35.3%
Large items				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Electronics/e-Waste (2)				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Scrap metal				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Wood				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Styrofoam			0.45	0.9%		0.0%		0.0%			0.05	1.0%	0.50	0.8%
Lab Waste				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Plastic Wrap				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Misc./Other				0.0%		0.0%		0.0%				0.0%	0.00	0.0%
Other / Non recyclable (3)			29.00	57.7%	0.20	1.9%	0.10	11.1%			1.60	33.3%	30.90	46.6%
QAQC Check	0.00	0.0%	50.30	100.0%	10.30	100.0%	0.90	100.0%	0.00	0.0%	4.80	100.0%	66.30	100.0%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Faculty of Education (UTS)
Date: Oct. 22/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	7.00		4.30						8.90				20.20	
Total Percent of Sample (in %):	34.7%		21.3%		0.0%		0.0%		44.1%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.40		1.10	25.6%					1.65	18.5%			3.15	15.6%
Mixed Papers	0.60		0.35	8.1%					0.60	6.7%			1.55	7.7%
Paper Towels	0.30		0.20	4.7%					0.55	6.2%			1.05	5.2%
Cardboard	0.25			0.0%						0.0%			0.25	1.2%
Organic Waste (if applicable)	1.35		0.85	19.8%					2.60	29.2%			4.80	23.8%
Large items				0.0%						0.0%			0.00	0.0%
Electronics/e-Waste				0.0%						0.0%			0.00	0.0%
Scrap metal				0.0%						0.0%			0.00	0.0%
Wood				0.0%						0.0%			0.00	0.0%
Styrofoam			0.20	4.7%					0.10	1.1%			0.30	1.5%
Lab Waste				0.0%						0.0%			0.00	0.0%
Plastic Wrap				0.0%						0.0%			0.00	0.0%
Misc./Other				0.0%						0.0%			0.00	0.0%
Other / Non recyclable	4.10		1.60	37.2%					3.40	38.2%			9.10	45.0%
QAQC Check	7.00	0.0%	4.30	100.0%	0.00	0.0%	0.00	0.0%	8.90	100.0%	0.00	0.0%	20.20	100.0%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: Rotman School of Management (105 St George St)

Date: Oct. 22/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	9.55		79.60		11.60		6.15						106.90	
Total Percent of Sample (in %):	8.9%		74.5%		10.9%		5.8%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.20	2.1%	17.65	22.2%		0.0%	0.10	1.6%					17.95	16.8%
Mixed Papers	0.30	3.1%	10.50	13.2%	0.25	2.2%		0.0%					11.05	10.3%
Paper Towels		0.0%	2.00	2.5%	10.90	94.0%		0.0%					12.90	12.1%
Cardboard	1.10	11.5%	2.60	3.3%		0.0%		0.0%					3.70	3.5%
Organic Waste (if applicable)	1.20	12.5%	10.20	12.8%		0.0%	5.40	87.8%					16.80	15.7%
Large items		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste		0.0%	0.65	0.8%		0.0%		0.0%					0.65	0.6%
Scrap metal		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Wood		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Styrofoam	0.10	1.0%	0.55	0.7%		0.0%		0.0%					0.65	0.6%
Lab Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap	0.10	1.0%	0.30	0.4%		0.0%		0.0%					0.40	0.4%
Misc./Other		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable	6.55	68.8%	35.15	44.2%	0.45	3.9%	0.65	10.6%					42.80	40.0%
QAQC Check	9.55	100.0%	79.60	100.0%	11.60	100.0%	6.15	100.0%	0.00	0.0%	0.00	0.0%	106.90	100.0%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: 215 Huron

Date: Oct. 22/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	5.60		7.15		7.30		11.75						31.80	
Total Percent of Sample (in %):	17.6%		22.5%		23.0%		36.9%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	4.05	72.3%	0.25	3.5%	0.20	2.7%	0.95	8.1%					5.45	17.1%
Mixed Papers	0.20	3.6%	0.55	7.7%	0.50	6.8%	0.45	3.8%					1.70	5.3%
Paper Towels		0.0%	0.55	7.7%	6.25	85.6%		0.0%					6.80	21.4%
Cardboard		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Organic Waste (if applicable)	0.80	14.3%	0.70	9.8%		0.0%	7.55	64.3%					9.05	28.5%
Large items		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste		0.0%	0.45	6.3%		0.0%		0.0%					0.45	1.4%
Scrap metal		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Wood		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Styrofoam	0.10	1.8%	0.05	0.7%		0.0%	0.20	1.7%					0.35	1.1%
Lab Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap		0.0%	0.60	8.4%		0.0%	0.05	0.4%					0.65	2.0%
Misc./Other		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable	0.45	8.1%	4.00	55.9%	0.35	4.8%	2.55	21.7%					7.35	23.1%
QAQC Check	5.60	100.0%	7.15	100.0%	7.30	100.0%	11.75	100.0%	0.00	0.0%	0.00	0.0%	31.80	100.0%

General Comments and Observations:

- Note 1:
- Note 2:
- Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: 1 Spadina Cres

Date: Oct. 22/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	0.90		1.50		1.15				2.45		1.45		7.45	
Total Percent of Sample (in %):	12.1%		20.1%		15.4%		0.0%		32.9%		19.5%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers		0.0%	0.05	3.3%		0.0%			0.05	2.0%	0.15		0.25	3.4%
Mixed Papers	0.10	11.1%	0.05	3.3%		0.0%			0.20	8.2%	0.55		0.90	12.1%
Paper Towels		0.0%	0.25	16.7%	1.10	95.7%			0.15	6.1%	0.05		1.55	20.8%
Cardboard		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Organic Waste (if applicable)	0.10	11.1%	0.90	60.0%		0.0%			0.55	22.4%	0.20		1.75	23.5%
Large items		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Electronics/e-Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Scrap metal		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Wood		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Styrofoam		0.0%		0.0%		0.0%				0.0%	0.05		0.05	0.7%
Lab Waste		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Plastic Wrap		0.0%		0.0%		0.0%				0.0%			0.00	0.0%
Misc./Other Note 1		0.0%		0.0%		0.0%			0.20	8.2%			0.20	2.7%
Other / Non recyclable	0.70	77.8%	0.25	16.7%	0.05	4.3%			1.30	53.1%	0.45		2.75	36.9%
QAQC Check	0.90	100.0%	1.50	100.0%	1.15	100.0%	0.00	0.0%	2.45	100.0%	1.45	0.0%	7.45	100.0%

General Comments and Observations:

Note 1: 0.2 kg of lab waste = textiles

Note 2:

Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: South Borden (487 Spadina)
Date: Oct. 22/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	6.40				1.05								7.45	
Total Percent of Sample (in %):	85.9%		0.0%		14.1%		0.0%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.15	2.3%				0.0%							0.15	2.0%
Mixed Papers	0.30	4.7%			0.05	4.8%							0.35	4.7%
Paper Towels		0.0%			1.00	95.2%							1.00	13.4%
Cardboard	0.05	0.8%				0.0%							0.05	0.7%
Organic Waste (if applicable)	0.35	5.5%				0.0%							0.35	4.7%
Large items		0.0%				0.0%							0.00	0.0%
Electronics/e-Waste	0.25	3.9%				0.0%							0.25	3.4%
Scrap metal	0.75	11.7%				0.0%							0.75	10.1%
Wood		0.0%				0.0%							0.00	0.0%
Styrofoam		0.0%				0.0%							0.00	0.0%
Lab Waste		0.0%				0.0%							0.00	0.0%
Plastic Wrap		0.0%				0.0%							0.00	0.0%
Misc./Other (Note 1)	0.10	1.6%				0.0%							0.10	1.3%
Other / Non recyclable	4.45	69.5%				0.0%							4.45	59.7%
QAQC Check	6.40	100.0%	0.00	0.0%	1.05	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	7.45	100.0%

General Comments and Observations:

Note 1: Several AA batteries found in waste
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Astronomy (50 St. George St)
Date: Oct. 21/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):	7.70				2.50		2.15						12.35	
Total Percent of Sample (in %):	62.3%		0.0%		20.2%		17.4%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	1.95	25.3%				0.0%	0.10	4.7%					2.05	16.6%
Mixed Papers	0.25	3.2%			0.30	12.0%	0.05	2.3%					0.60	4.9%
Paper Towels		0.0%			2.10	84.0%		0.0%					2.10	17.0%
Cardboard		0.0%				0.0%		0.0%					0.00	0.0%
Organic Waste (if applicable)	1.50	19.5%				0.0%	1.60	74.4%					3.10	25.1%
Large items		0.0%				0.0%		0.0%					0.00	0.0%
Electronics/e-Waste		0.0%				0.0%		0.0%					0.00	0.0%
Scrap metal		0.0%				0.0%		0.0%					0.00	0.0%
Wood		0.0%				0.0%		0.0%					0.00	0.0%
Styrofoam	0.20	2.6%				0.0%	0.05	2.3%					0.25	2.0%
Lab Waste		0.0%				0.0%		0.0%					0.00	0.0%
Plastic Wrap		0.0%				0.0%		0.0%					0.00	0.0%
Misc./Other		0.0%				0.0%		0.0%					0.00	0.0%
Other / Non recyclable	3.80	49.4%			0.10	4.0%	0.35	16.3%					4.25	34.4%
QAQC Check	7.70	100.0%			2.50	100.0%	2.15	100.0%					12.35	100.0%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Anthropology (19 Russell St)
Date: Oct. 21/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):			7.65		7.45		1.20		3.10				19.40	
Total Percent of Sample (in %):	0.0%		39.4%		38.4%		6.2%		16.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.60	7.8%		0.0%	0.05	4.2%	0.10				0.75	3.9%
Mixed Papers			0.35	4.6%		0.0%	0.10	8.3%					0.45	2.3%
Paper Towels				0.0%	7.35	98.7%		0.0%					7.35	37.9%
Cardboard				0.0%		0.0%		0.0%	0.45				0.45	2.3%
Organic Waste (if applicable)			0.25	3.3%		0.0%	0.30	25.0%					0.55	2.8%
Large items				0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste				0.0%		0.0%		0.0%					0.00	0.0%
Scrap metal				0.0%		0.0%		0.0%					0.00	0.0%
Wood				0.0%		0.0%		0.0%					0.00	0.0%
Styrofoam			0.05	0.7%		0.0%		0.0%	0.05				0.10	0.5%
Lab Waste				0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap			0.15	2.0%		0.0%		0.0%					0.15	0.8%
Misc./Other				0.0%		0.0%		0.0%					0.00	0.0%
Other / Non recyclable			6.25	81.7%	0.10	1.3%	0.75	62.5%	2.50				9.60	49.5%
QAQC Check	0.00	0.0%	7.65	100.0%	7.45	100.0%	1.20	100.0%	3.10	0.0%	0.00	0.0%	19.40	100.0%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Banting (100 College St)
Date: Oct. 24/08

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Total Weight of Sample (in kg):			28.65		10.10				1.40		13.80		53.95	
Total Percent of Sample (in %):	0.0%		53.1%		18.7%		0.0%		2.6%		25.6%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			2.60	9.1%	2.70	26.7%			0.50	35.7%	1.10	8.0%	6.90	12.8%
Mixed Papers			4.50	15.7%		0.0%			0.20	14.3%	0.10	0.7%	4.80	8.9%
Paper Towels			2.00	7.0%	4.65	46.0%				0.0%		0.0%	6.65	12.3%
Cardboard			3.60	12.6%		0.0%				0.0%		0.0%	3.60	6.7%
Organic Waste (if applicable)			0.20	0.7%	2.10	20.8%			0.60	42.9%	11.80	85.5%	14.70	27.2%
Large items				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Electronics/e-Waste				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Scrap metal				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Wood				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Styrofoam			4.10	14.3%		0.0%				0.0%	0.10	0.7%	4.20	7.8%
Lab Waste (Note 1)			6.20	21.6%		0.0%				0.0%		0.0%	6.20	11.5%
Plastic Wrap				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Misc./Other				0.0%		0.0%				0.0%		0.0%	0.00	0.0%
Other / Non recyclable			5.45	19.0%	0.65	6.4%			0.10	7.1%	0.70	5.1%	6.90	12.8%
QAQC Check	0.00	0.0%	28.65	100.0%	10.10	100.0%	0.00	0.0%	1.40	100.0%	13.80	100.0%	53.95	100.0%

General Comments and Observations:

Note 1: Needles found in waste. Dangerous!
 Note 2:
 Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Random Outdoor Depots
Date: Oct.21/08

Area of Collection:	Waste Compartment						Mixed Container Compartment						Mixed Paper Compartment						Polystyrene Compartment					
	Depot at Russell & St George		Depot on Galbraith Rd		Total		Depot at Russell & St George		Depot on Galbraith Rd		Total		Depot at Russell & St George		Depot on Galbraith Rd		Total		Depot at Russell & St George		Depot on Galbraith Rd		Total	
Total Weight of Sample (in kg):	3.20		2.55		5.75		1.70		3.75		5.45		0.90		2.45		3.35		3.60		2.30		5.90	
Total Percent of Sample (in %):	55.7%		44.3%		100.0%		31.2%		68.8%		100.0%		26.9%		73.1%		100.0%		61.0%		39.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.10	3.1%	0.45	17.6%	0.55	9.6%	1.55	91.2%	3.30	88.0%	4.85	89.0%		0.0%		0.0%	0.00	0.0%	0.40	11.1%	0.45	19.6%	0.85	14.4%
Mixed Papers	0.20	6.3%	0.15	5.9%	0.35	6.1%		0.0%	0.30	8.0%	0.30	5.5%	0.75	83.3%	2.45	100%	3.20	96%	0.95	26.4%	0.75	32.6%	1.70	28.8%
Paper Towels		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Cardboard		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%	0.15	16.7%		0.0%	0.15	4.5%		0.0%		0.0%	0.00	0.0%
Organic Waste (if applicable)	0.45	14.1%		0.0%	0.45	7.8%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%	0.50	13.9%		0.0%	0.50	8.5%
Large items		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Electronics/e-Waste		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Scrap metal		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Wood		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Styrofoam	0.05	1.6%	0.05	2.0%	0.10	1.7%	0.05	2.9%		0.0%	0.05	0.9%		0.0%		0.0%	0.00	0.0%	0.75	20.8%	0.50	21.7%	1.25	21.2%
Lab Waste		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Plastic Wrap		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%	0.05	1.4%		0.0%	0.05	0.8%
Misc./Other		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable (1)	2.40	75.0%	1.90	74.5%	4.30	74.8%	0.10	5.9%	0.15	4.0%	0.25	4.6%		0.0%		0.0%	0.00	0.0%	0.95	26.4%	0.60	26.1%	1.55	26.3%
QAQC Check	3.20	100%	2.55	100%	5.75	100%	1.70	100%	3.75	100%	5.45	100%	0.90	100%	2.45	100%	3.35	100%	3.60	100%	2.30	100%	5.90	100%

General Comments and Observations:

Note 1:
 Note 2:
 Note 3:

Waste Audit Data Sheet

Client: University of Toronto

Styrofoam

Bag#	Oct21/08 Weight kg	Oct24/08 Weight kg
1	0.85	4.4
2	1.15	5.3
3	1.05	4.7
4	0.75	4.3
5	1.4	2.5
6	0.3	4.3
7	1.55	3.4
8	0.4	4.6
9	0.65	2.25
10		5.1
11		2.4
12		4.4
13		6.1
14		4
15		4.5
16		4
17		1.4
18		1.5
19		2
20		2.1
Total	8.1	73.25
Average	0.9	3.66

Bags of Mixed Containers (2yd3 bin)

Bag#	Oct21/08 Weight kg
1	2.05
2	2.65
3	3.80
4	3.65
5	2.45
6	0.95
7	2.70
8	3.20
9	1.00
10	2.60
11	2.50
12	3.00
13	0.35
14	4.80
15	1.25
16	2.30
17	0.50
18	1.25
19	1.10
20	4.20
21	3.50
22	2.85
23	3.25
24	1.20
25	1.55
26	1.55
27	2.05
28	2.55
29	3.35
30	2.50
31	1.30
32	0.50
33	3.10
34	2.35
35	2.40
36	1.20
37	3.95
38	2.55
Total	88.00
Average	2.32

Swap Shop

Item	Oct21/08 Weight kg
Large computer monitor	19.8
Small computer monitor	13.35
Folding Metal Chair	6.1
Average Stack of Books (5)	4.6
2 Shelf Metal Cabinet	29.25
Box of misc. plastic items	4.05
Box of misc. items	14.5
Computer keyboard	1.45
5 empty binders	3.05
Stack VHS tapes	3.75
Metal Chair	7.8

date	mixed paper	paper towels est.	Shredding est.	Metal	Wood	Yard waste	Soil p/u	concrete	Swap Shop - Out including pad	In Swap	pallets	cardboard	s	batteries	fluorescents	Polystyrene	organics	bedding dumpster	88 Chestnut Organics	89 Chestnut B & C	M. Hall B & C	bottles & cans	computers, equipment, disks, plastic, trans parencies	recycled weight MT	monthly recycling avg. MT	279.04	yd*3 disposed	yd-tonne s	landfill tonne	garbage/ m2	monthly avg. garbage MT	Waste managed MT	5419,266	% recycled
May-07	64.32	5.50	11.83	8.40	15.19	6.77	2.27		2.06	1.00	1.42	23.15	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	14.00	2.62	296.76	2,402.00	72.06	123.60	195.66	172.5633	5419,266	61.79%			
Jun-07	44.15	5.50	11.83	8.40	15.19	6.77	2.27		4.32	1.00	1.42	23.05	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	17.50	4.49	284.12	2,306.00	69.18	91.05	160.23						
Jul-07	43.32	5.50	11.83	8.40	15.19	6.77	2.27		4.32	1.00	1.42	20.87	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	14.00	1.26	274.38	1,864.00	55.92	82.52	138.44						
Aug-07	61.37	5.50	11.83	8.40	15.19	6.77	2.27		4.32	1.00	1.42	23.82	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	17.50	6.32	303.94	2,020.00	60.60	67.47	128.07						
Sep-07	64.37	5.50	11.83	8.40	15.19	6.77	2.27		8.80	1.00	1.42	38.17	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	14.00	4.07	320.02	1,964.00	58.92	93.12	152.04						
Oct-07	72.06	5.50	11.83	8.40	15.19	6.77	2.27		5.00	1.00	1.42	31.57	0.03	0.14	0.60	0.34	105.32		25.00	4.83	1.96	14.00	2.44	315.67	2,774.00	83.22	148.22	231.44						
Nov-07	65.89	5.50	11.83	8.40	15.19	6.77	2.27		3.98	1.00	1.42	29.26	0.03	0.14	0.60	0.34	105.32	2.84	25.00	4.83	1.96	17.50	1.29	311.37	2,354.00	70.62	126.72	197.34						
Dec-07	44.77	5.50	11.83	8.40	15.19	6.77	2.27		0.24	1.00	1.42	21.52	0.03	0.14	0.60	0.34	57.86	5.83	25.00	4.83	1.96	10.50	2.48	228.48	1,636.00	49.08	84.90	133.98						
Jan-08	69.07	5.50	11.83	8.40	15.19	6.77	2.27		2.46	1.00	1.42	25.84	0.03	0.14	0.60	0.34	68.07	10.97	25.00	4.83	1.96	10.50	5.08	277.29	2,300.00	69.00	112.69	181.69						
Feb-08	55.72	5.50	11.83	8.40	15.19	6.77	2.27	6.00	2.28	1.00	1.42	26.94	0.03	0.14	0.60	0.34	37.75	5.38	25.00	4.83	1.96	14.00	4.13	231.48	2,222.00	66.66	121.46	188.12						
Mar-08	62.07	5.50	11.83	8.40	15.19	6.77	2.27		2.16	1.00	1.42	27.16	0.03	0.14	0.60	0.34	33.44	5.74	25.00	4.83	1.96	17.50	5.82	245.18	2,247.00	67.41	105.23	172.84						
Apr-08	71.56	5.74	11.83	8.40	15.19	6.77	2.27	6.00	1.64	1.00	1.42	28.00	0.03	0.14	0.60	0.34	39.81	6.32	25.00	4.83	1.96	14.00	6.97	259.83	2,153.00	64.59	126.52	191.11						
Total	718.67	66.24	142.00	100.80	182.29	81.29	27.24	12.00	41.56	12.00	17.04	319.35	0.41	1.64	7.20	4.08	974.17	37.08	300.00	57.96	23.52	175.00	46.96	3,348.51	26,242.00	787.26	1,283.50	2,070.76						

est.

APPENDIX 2

Waste Audit Summary - Industrial, Commercial and Institutional Establishments (As required by Ontario Regulation 102)

Company / Institution: University of Toronto	
Contact Person:	
Site Address:	
Telephone:	Current Year: May 2076-April 2008

Type of Establishment		<input checked="" type="checkbox"/> Educational	Enrollment:
<input type="checkbox"/> Restaurant	<input type="checkbox"/> Over \$ 3 million	<input type="checkbox"/> Manufacturing	Hours:
<input type="checkbox"/> Hospital	O.Reg. 964 Class A,B,F	<input type="checkbox"/> Office Building	sq.m.:
<input type="checkbox"/> Hotel/Motel	No. of Units	<input type="checkbox"/> Retail Shopping	sq.m.:

Waste Management Summary (Quantities in Tonnes)

Waste Category	Generated			Reused			Recycled			Disposed		
	Base Year (May 2006 - April 2007)	Current Year (May 2076- April 2008)	Increase / (Decrease)	Base Year (May 2006 - April 2007)	Current Year (May 2076- April 2008)	Increase / (Decrease)	Base Year (May 2006 - April 2007)	Current Year (May 2076- April 2008)	Increase / (Decrease)	Base Year (May 2006 - April 2007)	Current Year (May 2076- April 2008)	Increase / (Decrease)
Mixed Paper	1,105.71	1,495.52	389.81				928.40	926.91	(1.49)	177.31	568.61	391.30
Metal	113.52	104.22	(9.30)				113.52	100.80	(12.72)		3.42	3.42
Wood + Pallets	109.55	199.33	89.78				109.55	199.33	89.78			0.00
Yard Waste	36.60	81.29	44.69				36.60	81.29	44.69			0.00
Furniture, Equipment and Supplies	47.77	90.64	42.87	47.77	90.64	42.87	0.00	0.00	0.00			0.00
Cardboard	310.04	352.10	42.06				300.82	319.35	18.53	9.22	32.75	23.53
Toner Cartridge	0.84	0.41	(0.43)				0.84	0.41	(0.43)			0.00
Batteries	3.61	1.64	(1.97)				3.61	1.64	(1.97)			0.00
Fluorescent Lamps	9.48	7.20	(2.28)				9.48	7.20	(2.28)			0.00
Foam Packaging (Polystyrene)	35.11	37.19	2.08				4.08	4.08	0.00	31.03	33.11	2.08
Concrete	20.00	12.00	(8.00)				20.00	12.00	(8.00)			0.00
Organics (Waste Food)	1,767.40	1,904.87	137.47				1,705.77	1,274.18	(431.59)	61.63	630.69	569.06
Mixed Containers (Bottles & Cans)	332.01	444.88	112.87				250.88	256.48	5.60	81.13	188.40	107.27
e-Waste (Electronic Equipment) and Special Plastics	63.45	51.85	(11.60)				49.56	46.96	(2.60)	13.89	4.89	(9.00)
Tires	0.00	22.67	22.67				0.00	0.00	0.00		22.67	22.67
Soil	14.40	27.24					14.40	27.24	12.84			
Other	1,721.65	586.22	(1,135.43)						0.00	1,721.65	586.22	(1,135.43)
Total	5,691.14	5,419.27	(284.71)	47.77	90.64	42.87	3,547.51	3,257.87	(289.64)	2,095.86	2,070.76	(25.10)
Percent Change			(4.78)			89.74			(8.16)			(1.20)

Recycled Content of Materials (Bought or Sold)

Material	Percentage of Recycled Content ^A
Ledger- purchase material containing recycled content	10-100
Newspaper- purchase material containing recycled content	0-100
Cardboard- packaging material with post-consumer recycled content	10-100
Plastic bottles, Glass Containers and Aluminum Cans-purchase material containing post-consumer recycled content	10-100
Wood-packaging material with post-consumer recycled content	10-100

A-Based on the average percentage of recycled content obtained from available website publications.

Note: Recycled-content material is an item that contains recovered materials. Recovered materials include both pre-consumer and post-consumer wastes. Post-consumer material comes from previously used business or consumer products. Pre-consumer material is basically manufacturing waste.

I hereby certify that the information provided is complete and correct, and the establishment complies with all the requirements of Ontario Regulation 102/94.		
Signature of Authorized Official:	Title:	Date:

APPENDIX 3

Waste Reduction Workplan Summary - Industrial, Commercial and Institutional Establishments (As required by Ontario Regulation 102)

Company / Institution: University of Toronto		
Contact Person: Reno Strano		
Site Address:		
Telephone:	Period: May 2006-April 2007	Waste disposed last year 2,070.76 Tonnes

Type of Establishment		<input checked="" type="checkbox"/> Educational	Enrollment:
<input type="checkbox"/> Restaurant	<input type="checkbox"/> Over \$ 3 million	<input type="checkbox"/> Manufacturing	Hours:
<input type="checkbox"/> Hospital	O. Reg. 964 Class A,B,F	<input type="checkbox"/> Office Building	sq.m.:
<input type="checkbox"/> Hotel/Motel	No. of Units	<input type="checkbox"/> Retail Shopping	sq.m.:

Waste Reduction Workplan								
Waste Category	Quantity (Tonnes)	Proposed Action to Reduce, Reuse or Recycle Material	Projections			Start Date	End Date	Status
			Reduction (Tonnes)	Reuse (Tonnes)	Recycling (Tonnes)			

I hereby certify that the information provided is complete and correct, and the establishment complies with all the requirements of Ontario Regulation 102/94.		
Signature of Authorized Official:	Title:	Date:

APPENDIX 4

UofT Waste Audit November 2008 - Compactor Summary

November 4, 2008: Load #1 – 300 Huron

The following materials were found:

- | | |
|--|---|
| <ul style="list-style-type: none"> - paper towels (full bags) - milk & cream cartons (full bags) - newsprint & paper - mixed containers (bottles & cans) | <ul style="list-style-type: none"> - large plastic jugs (full bag) - cardboard - Styrofoam - carpet |
|--|---|

	
Full bags of paper towels	Full bags of milk & cream cartons
	
Full bag of mixed containers	Carpet

November 4, 2008: Load #2 – 33 Wilcox - Earth & Science Building

The following materials were found:

- | | |
|---|--|
| <ul style="list-style-type: none"> - ladder - computer - TV - paper towels (full bags) - mixed containers (full bags) - styrofoam (bags of peanuts and larger pieces) | <ul style="list-style-type: none"> - electrical wiring - framed picture - newsprint - large area rug - 3 chairs |
|---|--|

	
Full bag of mixed containers	Wood ladder

UofT Waste Audit November 2008 - Compactor Summary

	
TV	Full bag of mixed papers

November 5, 2008: Load #1 – OISE (252 Bloor St)

The following materials were found:

- | | |
|--|---|
| <ul style="list-style-type: none"> - cardboard - paper towels (5-6 bags) - mixed containers (bottle & cans) | <ul style="list-style-type: none"> - styrofoam - computer speakers & hardware - some paper & newsprint |
|--|---|

	
Cardboard boxes	Full bag of mixed containers
	
Full bags of paper towels	Full bag of mixed containers

November 5, 2008: Load #2 – Roberts Library (369 Huron Street)

The following materials were found:

- Paper towels (full bags)
- umbrella
- vaccum
- wood
- paper
- Very high amount of mixed containers mixed in with waste.





UofT Waste Audit November 2008 - Compactor Summary

	
Full bag of mixed containers	Full bag of mixed papers
	
Scrap wood	Full bags of paper towels

November 6, 2008: Load #1 – Medical Sciences (1 Kings College Circle)

The following materials were found:

- metal crate
- 3 computer hard drives
- cardboard
- papertowels
- styrofoam (peanuts & blocks)
- 2 chairs
- large plastic clear containers
- mixed containers (2 full bags + traces)
- paper

	
Computer hard drive	Office Chair
	
styrofoam (peanuts)	Full bag of mixed containers

November 6, 2008: Load #2 – Sanford Flemming (17 Kings College Circle)

The following materials were found:

UofT Waste Audit November 2008 - Compactor Summary

- lots of styrofoam (peanuts & blocks)
- full bags of paper & newsprint
- wood
- cardboard & pizza boxes
- 1 computer

- mixed containers
- 3 large metal vent covers
- organics
- plant material



Styrofoam (blocks)



Full bag of mixed containers



Scrap wood



Plastic containers

FIGURES

Figure 1: Waste Audit Summary
University of Toronto

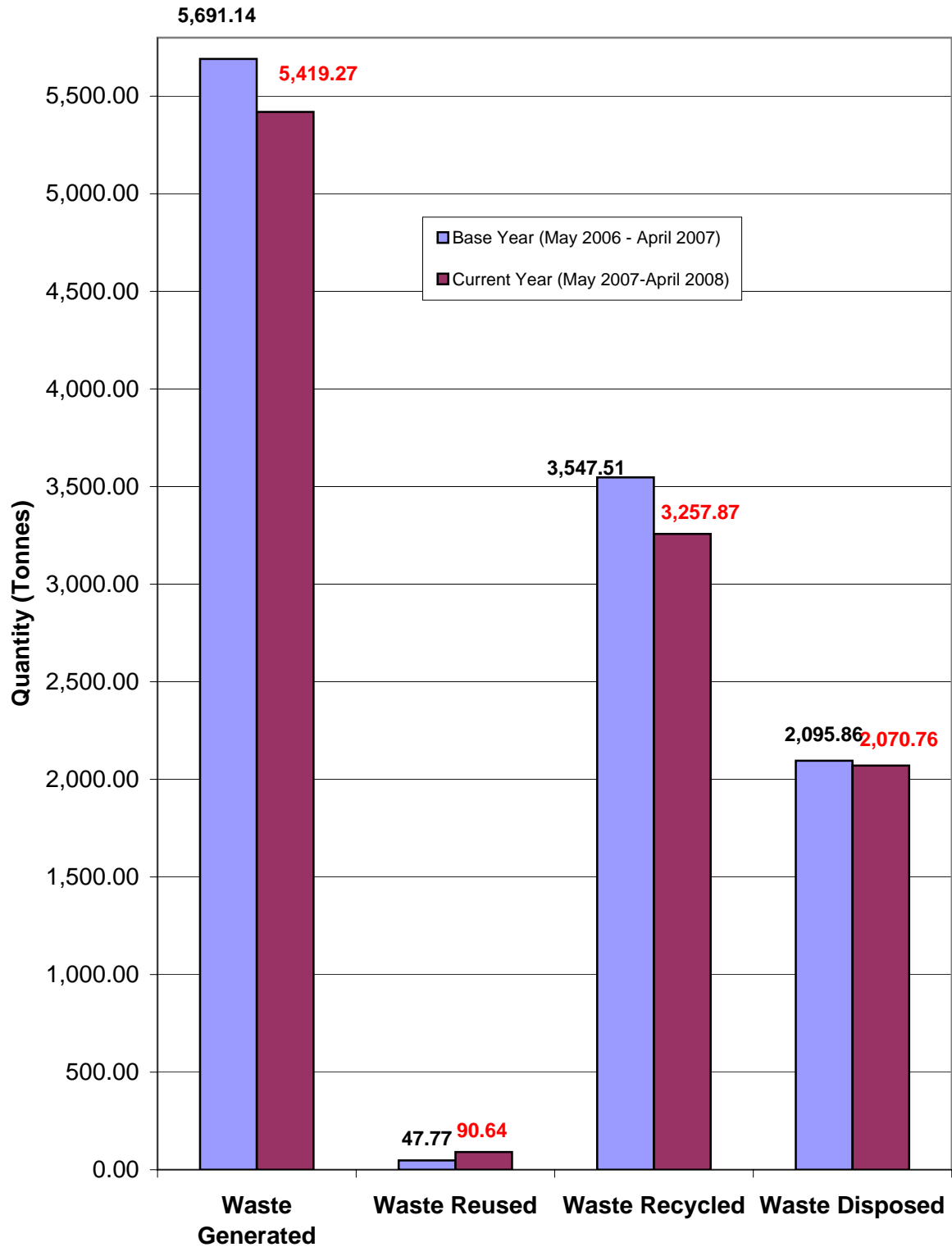


Figure 2: Waste Increase/Decrease (%)
University of Toronto
May 2007 - April 2008

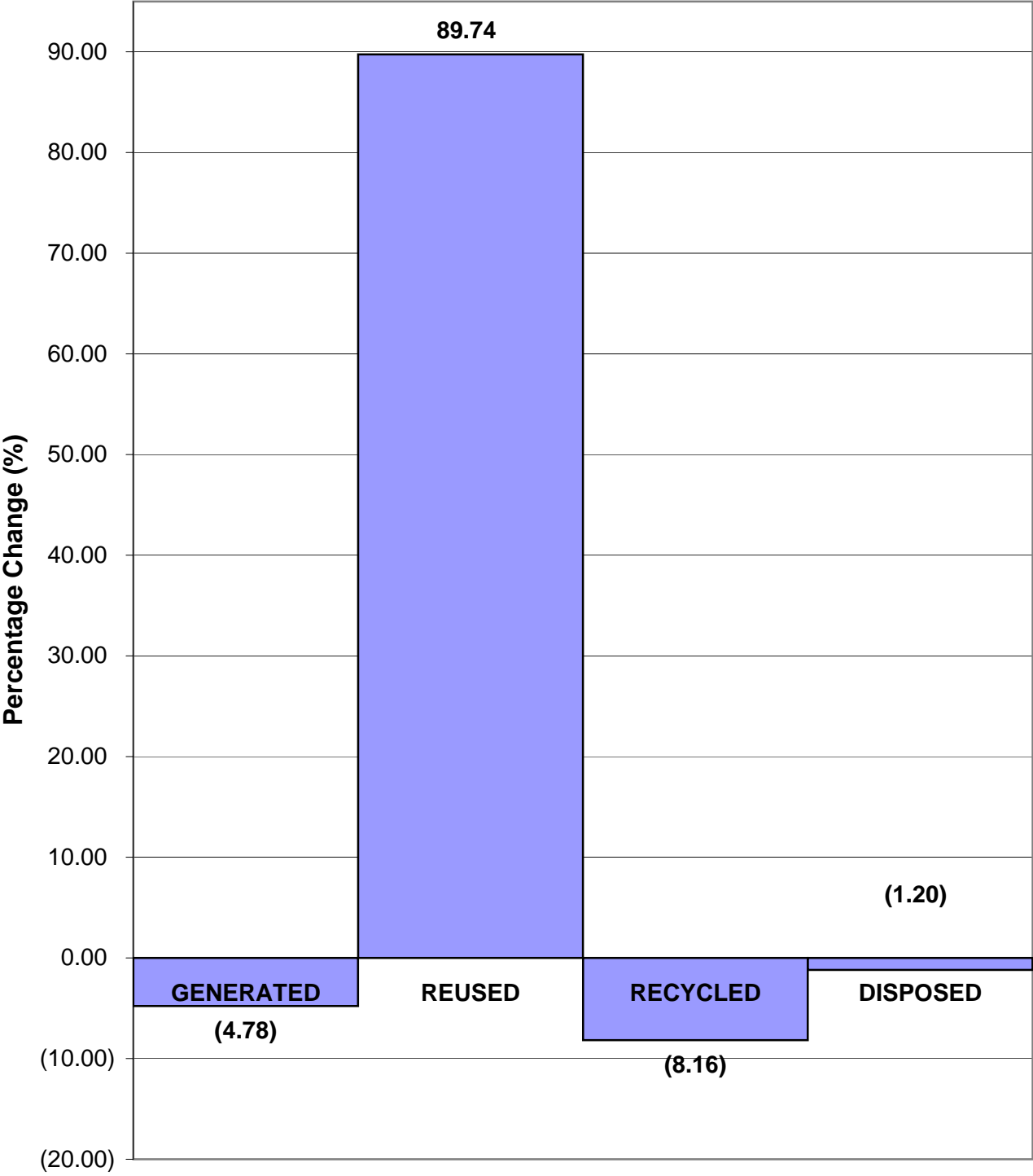


Figure 3 - Waste Diversion Summary (%)
University of Toronto
May 2007- April 2008

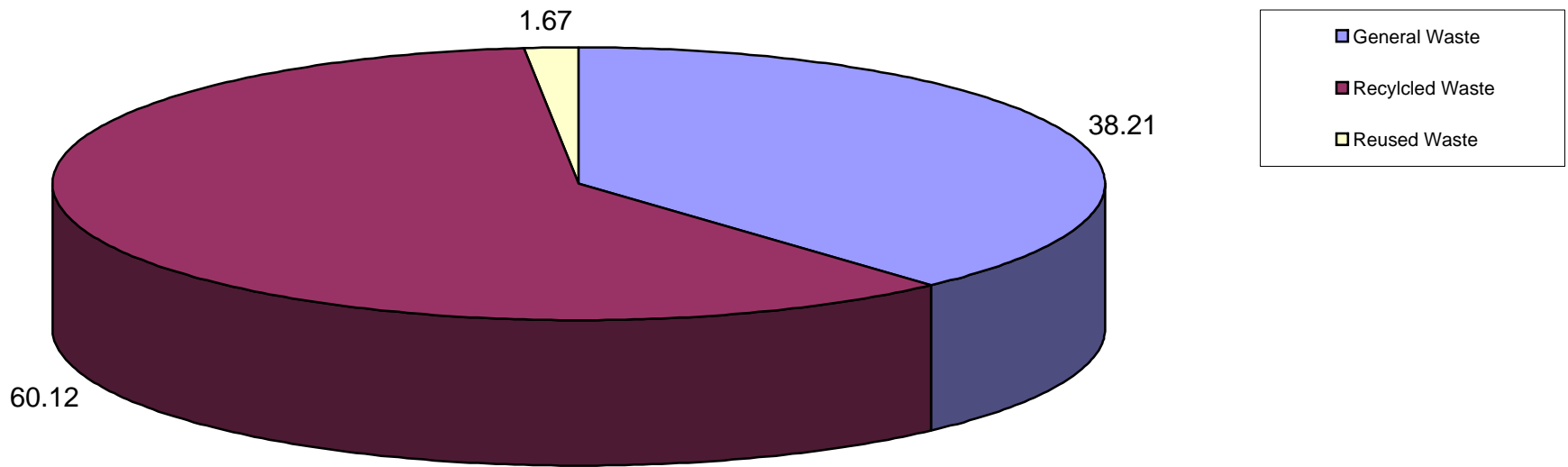


Figure 4 - Recycled Waste Diversion Summary (%)
University of Toronto
May 2007 - April 2008

