SOLID NON-HAZARDOUS WASTE AUDIT

(MAY 2008 - APRIL 2009)

UNIVERSITY OF TORONTO
TORONTO, ONTARIO

ENVIROVISION INC.

MAY 2010

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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 during March and April 2010; therefore, Envirovision considers that this constitutes an indicative sample of the activities and waste types generated during the spring school period.

The total waste generated by UofT on any given day is approximately 5,675 kg. The total waste sampled during the spring of 2010 was 558.65 kg, which is approximately 10% of the total waste generated on a typical day.

Compactor loads of waste were audited at the Queensway and Unwin Transfer Stations 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, 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 2008 to April 2009 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
Connaught Labs	1 Spadina Crescent, Toronto, M5S 2J5, UofT Building#: 54		x	x	x	x	
Sidney Smith Hall	100 St. George Street, Toronto, M5S 3G3, UofT Building#: 33	x	x		x		
Bahen Centre for Information Technology	40 St. George Street, Toronto, M5S 2E4, UofT Building#: 80	x	x	x	x	x	x
Donnelly Centre Cellular & Biomolecular Research	160 College Street, Toronto, UofT Building#: 160		x			x	
Dental Building	124 Edward Street, Toronto, M5G 1G6, UofT Building# 65	x	x		x	x	x
UofT Schools	371 Bloor Street West, Toronto, M5S 2R7, UofT Building#: 14		x				
Sandford Fleming Building	10 King's College Road, Toronto, M5S 3G4, UofT Building#: 9	x	x	x	x		
Best Institute -	112 College Street, Toronto, M5G 1L6, UofT Building#: 52	x	x	x	x	x	
Earth Sciences Centre	33 Willcocks Street, Toronto, M5S 3B3, UofT Building#: 62	x	x			x	
Health Sciences Building	155 College Street, Toronto, UofT Building#: 154	x	x	x			
John P. Robarts Library Building	130 St. George Street, Toronto, M5S 1A5, UofT Building#: 6	x	x	x	x	x	
Leighton Goldie McCarthy House (Child Study)	45 Walmer Road, Toronto, M5R 2X2, UofT Building#: 53						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 spring of 2010, the areas generating most of the waste by weight are as follow:

Name	Address	Quantity (kilogram)	Quantity (%)
Connaught Labs	1 Spadina Crescent, Toronto, M5S 2J5, UofT Building#: 54	5.45	1.07%
Sidney Smith Hall	100 St. George Street, Toronto, M5S 3G3, UofT Building#: 33	42.60	8.38%
Bahen Centre for Information Technology	40 St. George Street, Toronto, M5S 2E4, UofT Building#: 80	56.45	11.11%
Donnelly Centre Cellular & Biomolecular Research	160 College Street, Toronto, UofT Building#: 160	61.20	12.04%
Dental Building	124 Edward Street, Toronto, M5G 1G6, UofT Building# 65	162.90	32.05%
UofT Schools	371 Bloor Street West, Toronto, M5S 2R7, UofT Building#: 14	3.25	0.64%
Sandford Fleming Building	10 King's College Road, Toronto, M5S 3G4, UofT Building#: 9	72.45	14.25%
Best Institute -	112 College Street, Toronto, M5G 1L6, UofT Building#: 52	12.80	2.52%
Earth Sciences Centre	33 Willcocks Street, Toronto, M5S 3B3, UofT Building#: 62	18.80	3.70%
Health Sciences Building	155 College Street, Toronto, UofT Building#: 154	24.35	4.79%
John P. Robarts Library Building	130 St. George Street, Toronto, M5S 1A5, UofT Building#: 6	41.15	8.10%
Leighton Goldie McCarthy House (Child Study)	45 Walmer Road, Toronto, M5R 2X2, UofT Building#: 53	6.90	1.36%
Outdoors Depots	---	50.35	0.00%
Total		**558.65**	100%

During the waste audit, a total of approximately 558.65 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 %
Connaught Labs	1 Spadina Crescent, Toronto, M5S 2J5, UofT Building#: 54				35.8		
Sidney Smith Hall	100 St. George Street, Toronto, M5S 3G3, UofT Building#: 33				38.4		
Bahen Centre for Information Technology	40 St. George Street, Toronto, M5S 2E4, UofT Building#: 80		27.5				
Donnelly Centre Cellular & Biomolecular Research	160 College Street, Toronto, UofT Building#: 160					55.3	
Dental Building	124 Edward Street, Toronto, M5G 1G6, UofT Building# 65					78.3	
UofT Schools	371 Bloor Street West, Toronto, M5S 2R7, UofT Building#: 14		100				
Sandford Fleming Building	10 King's College Road, Toronto, M5S 3G4, UofT Building#: 9		40.4				
Best Institute -	112 College Street, Toronto, M5G 1L6, UofT Building#: 52					63.3	
Earth Sciences Centre	33 Willcocks Street, Toronto, M5S 3B3, UofT Building#: 62		45.2				
Health Sciences Building	155 College Street, Toronto, UofT Building#: 154		63.7				
John P. Robarts Library Building	130 St. George Street, Toronto, M5S 1A5, UofT Building#: 6			27.9			
Leighton Goldie McCarthy House (Child Study)	45 Walmer Road, Toronto, M5R 2X2, UofT Building#: 53						100

NOTES FOR AUDITS OF ON-SITE OUTDOOR DEPOTS

April 2010

- *Depot at 321 Bloor*

Waste Category	Waste Compartment	Mixed Container Comportment	Mixed Paper Compartment	Coffee Cups Comportment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.20	1.85		0.20
Mixed Papers	0.10	0.20	1.7	0.15
Cardboard	0.05			
Styrofoam	0.05			
Coffee Cups	0.10		0.2	1.80
Non recyclable	0.70			
Total	**1.20**	**2.05**	**1.90**	**2.15**
% Contamination	**33.3%**	**9.8%**	**10.5%**	**16.3%**

- *Depot at 150 St. George*

Waste Category	Waste Compartment	Mixed Container Comportment	Mixed Paper Compartment	Coffee Cups Comportment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.35	1.75	0.40	0.20
Mixed Papers	0.25		5.15	0.20
Cardboard				
Wood			0.20	
Yard Waste			1.90	
Coffee Cups	0.20		0.25	2.35
Non recyclable	2.95			
Total	**3.75**	**1.75**	**7.90**	**2.75**
% Contamination	**21.3%**	**0%**	**34.8%**	**14.5%**

- *Depot at 60 St. George*

Waste Category	Waste Compartment	Mixed Container Comportment	Mixed Paper Compartment	Coffee Cups Comportment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.15	2.15	0.20	0.30
Mixed Papers	0.20	0.30	1.75	0.15
Cardboard	0.10			
Styrofoam	0.05	0.05	0.05	0.05
Wood				
Yard Waste				
Coffee Cups	0.35			1.20
Non recyclable	2.35			
Total	**3.20**	**2.50**	**2.0**	**1.70**
% Contamination	**21.9%**	**14.0%**	**12.5%**	**29.4%**

- *Depot at 2 Sussex*

Waste Category	Waste Compartment	Mixed Container Comportment	Mixed Paper Compartment	Coffee Cups Comportment
	kilogram	kilogram	kilogram	kilogram
Mixed Containers	0.55	2.35		0.50
Mixed Papers	0.45	0.15	6.10	0.25
Cardboard			0.40	
Styrofoam	0.05			0.05
Wood				
Yard Waste				
Coffee Cups	0.25			1.50
Non recyclable	5.00			
Total	**6.30**	**2.40**	**6.50**	**2.30**
% Contamination	**19.8%**	**6.3%**	**6.2%**	**34.8%**

Results indicate that there is between 20% and 33% of recyclable materials (mixed containers, mixed paper, coffee cups, etc.) in the waste comportment.

Mixed containers contamination rates ranged between 0% and 14%.

Mixed paper contamination rates ranged between 6.2% and 35%.

Coffee Cups contamination rates ranged between 15% and 35%.

NOTES FOR OFF-SITE AUDITS OF COMPACTORS

Please refer to notes and photograph attached as Appendix 2. Results indicate that cleaning staff are disposing of recyclable materials in the compactors designated for waste only.

3.0 DIVERSION PROGRAMS & WASTE MANAGEMENT SYSTEMS

3.1 Waste Diversion Programs

Recycling and reuse programs have been initiated at UofT 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 2008 - April 2009)"* and found on the following page.

Table 1: Waste Diversion Summary (May 2008-April 2009)

Waste Category	Quantity (metric tonnes)[A]
Recycled	
Mixed Paper	1,032.74
Metal	120.36
Wood	91.34
Yard Waste	151.75
Pallets	14.64
Cardboard	324.26
Toner Cartridge	0.00
Batteries	3.16
Fluorescents	7.50
Polystyrene	4.08
Organics	1,334.10
Bottles and Cans	418.32
e-Waste and special plastics	57.73
Tires	0.00
Concrete	2.00
Soil	111.24
Total Recycled	**3,673.22**
Reused	
Equipment and Supplies	98.52
Total Reused	**98.52**
Total Recycled + Reused	**3,771.74**

A - Based on the information provided by UofT.

3.2 Waste Disposal Systems

Approximately 1,973.47 tonnes of general waste was generated by UofT from May 2008 to April 2009.

3.3 Current Annual Diversion Rate

Table 2: Waste Management Summary

Waste Management	Quantity(metric tonnes)	Percent (%)
Disposed (general waste)	1,973.47	34.35
Reused	98.52	1.71
Recycled	3,673.22	63.94
Generated = Disposed + Reused + Recycled	**5,745.21**	**100.0**

A - Based on the information provided by UofT.

Therefore, UofT's current annual waste diversion rate is approximately 66%. UofT's Waste Management and Recycling Department has also implemented a number of initiatives to reduce and reuse wastes on campus that were not quantified.

The "Lug-A-Mug" program was initiated in the early 1990's. It involves handing out a reusable insulated mug to staff, students and faculty thus reducing the use of disposable cups/lids on campus. Programs have also been introduced to reduce paper use on campus. These include the one-sided paper reuse program implemented in 1997 and the PaperBuster program implemented in 2007.

In addition, when large capital projects occur on campus, such as constructing a new building, UofT's Grounds Services will go to the proposed site prior to construction to remove items that can be used elsewhere on campus. Such items include perennials, interlocking paving stones and irrigation systems. When such projects that generate waste, such as replacing sidewalks, arrangements are made to recycle the wastes (such as concrete, wood, steel, etc.) to prevent it from being disposed to landfill.

Furthermore, UofT does not include reuse programs implemented on-campus in cafeterias, for such items as milk, egg and bread trays. To be consistent with past reports, these items were not included as part of the scope of this study. Since there are numerous vendors and departments on campus, it is difficult to track every individual reuse program implemented on campus, although we acknowledge that they do exist.

If all these "Reduce" and "Reuse" programs were quantified, UofT's diversion rate would be

considerably higher than 66%. Therefore, the current diversion rate should be considered a conservative estimate of the actual diversion rate. UofT's Waste Management and Recycling Department is very interested developing additional programs to further reduce and reuse materials on-campus.

3.4 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 2008 to April 2009, UofT sent approximately 1,973.47 metric tonnes of waste to landfill and diverted approximately 3,771.74 metric tonnes of waste from landfill through recycling and reuse. This represents a diversion rate of approximately 65.65%.

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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APPENDICES

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 March-April 2010 as follows

Audited Building	Date	Total Sample Size (kg)	Location
Connaught Labs	Mar-15-10	5.45	Connaught Labs - 1 Spadina Crescent, Toronto, M5S 2J5, UofT Building#: 54
Sidney Smith Hall	Mar-16-10	42.60	Sidney Smith Hall - 100 St. George Street, Toronto, M5S 3G3, UofT Building 33
BCIT	Mar-16-10	56.45	Bahen Centre for Information Technology - 40 St. George Street, Toronto, M5S 2E4, UofT Building 80
CCBR	Mar-17-10	61.20	Donnelly Centre Cellular & Biomolecular Research - 160 College Street, Toronto, UofT Building# 160
Dental	Mar-17-10	162.90	Dental Building - 124 Edward Street, Toronto, M5G 1G6, UofT Building# 65
UofT Schools	Mar-17-10	3.25	UofT Schools - 371 Bloor Street West, Toronto, M5S 2R7, UofT Building#: 14
Sanford Flemming	Mar-18-10	72.45	Sandford Fleming Building - 10 King's College Road, Toronto, M5S 3G4, UofT Building#: 9
Best	Mar-18-10	12.80	Best Institute - 112 College Street, Toronto, M5G 1L6, UofT Building#: 52
Earth Sciences	Mar-18-10	18.80	Earth Sciences Centre - 33 Willcocks Street, Toronto, M5S 3B3, UofT Building#: 62
Health Sciences	Mar-19-10	24.35	Health Sciences Building - 155 College Street, Toronto, UofT Building#: 154
Robarts	Mar-19-10	41.15	John P. Robarts Library Building - 130 St. George Street, Toronto, M5S 1A5, UofT Building#: 6
Institute Child Studies	Apr-10	6.90	Leighton Goldie McCarthy House (Child Study) - 45 Walmer Road, Toronto, M5R 2X2, UofT Building#: 53
Outdoor Multi Sort Depots	Apr-10	50.35	Various
Total Sample:		558.65	

Table: Overall Summary

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Outdoor Recycling Depot		Total	
Total Weight of Sample (in kg):	43.00		138.95		49.90		71.05		188.50		16.90		50.35		558.65	
Total Percent of Sample (in %):	7.7%		24.9%		8.9%		12.7%		33.7%		3.0%		9.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%			kg	%
Mixed Containers	4.75	11.0%	14.05	10.1%	1.00	2.0%	7.20	10.1%	27.85	14.8%	1.95	11.5%	11.05	21.9%	67.85	12.1%
Mixed Papers	5.60	13.0%	11.80	8.5%	2.75	5.5%	5.50	7.7%	20.50	10.9%	0.55	3.3%	17.10	34.0%	63.80	11.4%
Paper Towels	0.00	0.0%	0.00	0.0%	42.85	85.9%	0.00	0.0%	0.00	0.0%	0.40	2.4%	0.00	0.0%	43.25	7.7%
Cardboard	0.80	1.9%	1.90	1.4%	0.15	0.3%	0.75	1.1%	2.35	1.2%	0.10	0.6%	0.55	1.1%	6.60	1.2%
Organic Waste (if applicable)	4.35	10.1%	20.55	14.8%	0.30	0.6%	21.55	30.3%	0.75	0.4%	1.00	5.9%	0.00	0.0%	48.50	8.7%
Large items	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%
Electronics/e-Waste	0.00	0.0%	0.60	0.4%	0.00	0.0%	0.00	0.0%	0.15	0.1%	0.00	0.0%	0.00	0.0%	0.75	0.1%
Scrap metal	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.05	0.3%	0.00	0.0%	0.05	0.0%
Wood	0.00	0.0%	0.80	0.6%	0.00	0.0%	0.00	0.0%	0.10	0.1%	4.50	26.6%	0.20	0.4%	5.60	1.0%
Styrofoam	0.50	1.2%	2.50	1.8%	0.00	0.0%	1.40	2.0%	3.85	2.0%	0.15	0.9%	0.35	0.7%	8.75	1.6%
Lab Waste	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	51.95	27.6%	0.00	0.0%	0.00	0.0%	51.95	9.3%
Plastic Wrap	0.05	0.1%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.05	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%	1.90	3.8%	1.90	0.3%
Coffee Cups	2.30	5.3%	11.75	8.5%	0.55	1.1%	4.80	6.8%	4.55	2.4%	0.15	0.9%	8.20	16.3%	32.30	5.8%
Other / Non recyclable	24.65	57.3%	75.00	54.0%	2.30	4.6%	29.85	42.0%	76.45	40.6%	8.05	47.6%	11.00	21.8%	227.30	40.7%
QAQC Check	43.00	100.0%	138.95	100.0%	49.90	100.0%	71.05	100.0%	188.50	100.0%	16.90	100.0%	50.35	100.0%	558.65	100.0%

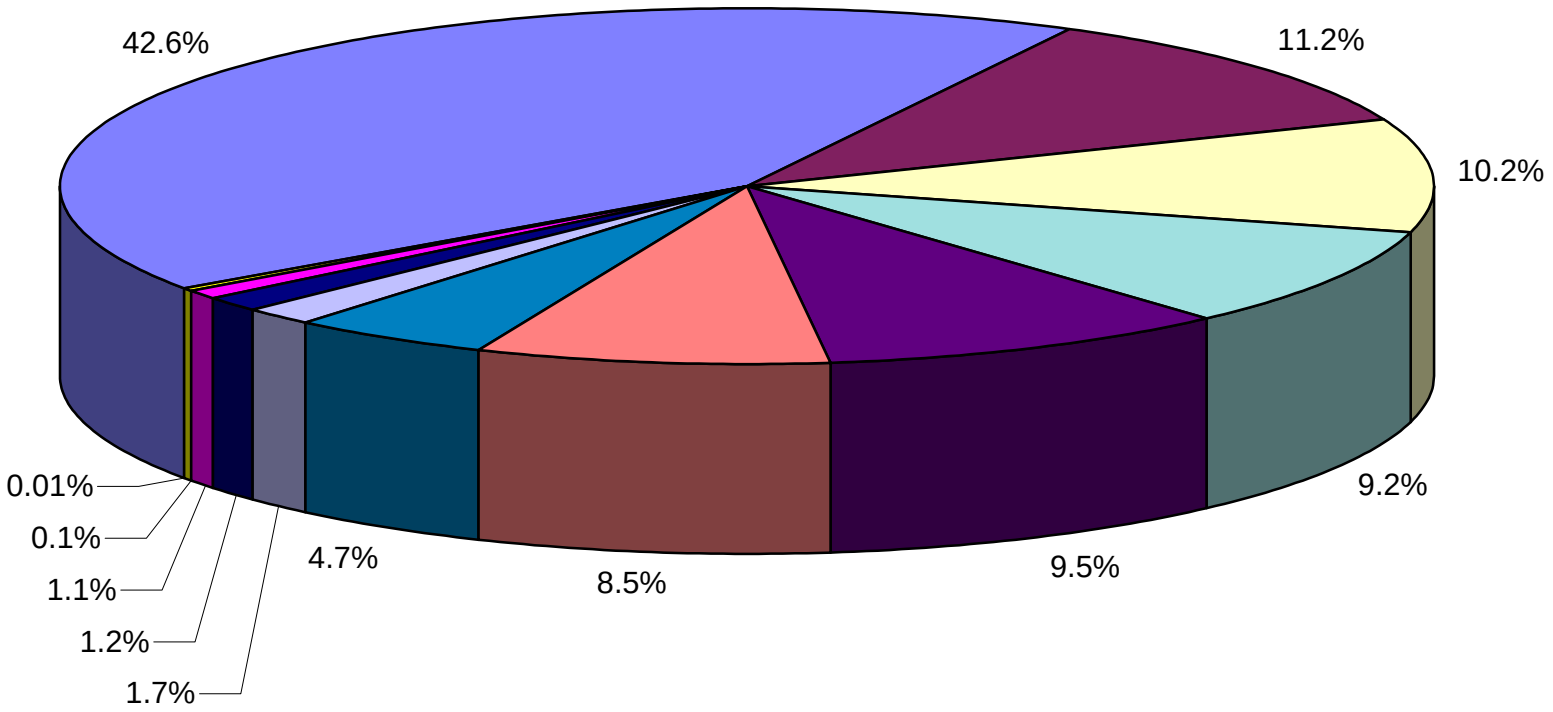
Notes:

Total Weight & Waste Composition

Total Weight of waste shipped off-site: **1,973.47** Tonnes <-- UofT to add weight here

Composition	Percent	Tonnes
Other / Non recyclable	40.7%	802.95
Mixed Containers	12.1%	239.68
Lab Waste	9.3%	183.52
Mixed Papers	11.4%	225.38
Organic Waste (if applicable)	8.7%	171.33
Paper Towels	7.7%	152.78
Coffee Cups	5.8%	114.10
Styrofoam	1.6%	30.92
Cardboard	1.2%	23.31
Wood	1.0%	19.78
Electronics/e-Waste	0.1%	2.65
Plastic Wrap	0.01%	0.18
Scrap metal	0.01%	0.18
Total	99.7%	1966.77

University of Toronto St. George Campus
March 2010 Waste Composition Summary Based on 24 hr Samples



Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Sanford Flemming
Date: Mar-18-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	2.75		29.30		23.20		17.20						72.45	
Total Percent of Sample (in %):	3.8%		40.4%		32.0%		23.7%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.35	12.7%	2.90	9.9%	0.20	0.9%	1.15	6.7%					4.60	6.3%
Mixed Papers	0.20	7.3%	1.95	6.7%	0.35	1.5%	2.20	12.8%					4.70	6.5%
Paper Towels		0.0%		0.0%	21.75	93.8%		0.0%					21.75	30.0%
Cardboard	0.10	3.6%	0.65	2.2%		0.0%		0.0%					0.75	1.0%
Organic Waste (if applicable)	0.25	9.1%	2.10	7.2%		0.0%	4.60	26.7%					6.95	9.6%
Large items		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Electronics/e-Waste		0.0%	0.30	1.0%		0.0%		0.0%					0.30	0.4%
Scrap metal		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Wood		0.0%	0.10	0.3%		0.0%		0.0%					0.10	0.1%
Styrofoam	0.05	1.8%	0.40	1.4%		0.0%	0.50	2.9%					0.95	1.3%
Lab Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Plastic Wrap	0.05	1.8%		0.0%		0.0%		0.0%					0.05	0.1%
Yard Waste		0.0%		0.0%		0.0%		0.0%					0.00	0.0%
Coffee Cups	0.15	5.5%	1.50	5.1%	0.10	0.4%	1.90	11.0%					3.65	5.0%
Other / Non recyclable	1.60	58.2%	19.40	66.2%	0.80	3.4%	6.85	39.8%					28.65	39.5%
QAQC Check	2.75	100.0%	29.30	100.0%	23.20	100.0%	17.20	100.0%	0.00	0.0%	0.00	0.0%	72.45	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Robarts
Date: Mar-19-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	4.80		7.85		9.00		11.50		8.00				41.15	
Total Percent of Sample (in %):	11.7%		19.1%		21.9%		27.9%		19.4%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.55	11.5%	0.60	7.6%	0.10	1.0%	1.50	13.0%	1.50	18.8%			4.25	10.3%
Mixed Papers	0.75	15.6%	0.75	9.6%	0.20	2.1%	0.40	3.5%	1.20	15.0%			3.30	8.0%
Paper Towels		0.0%		0.0%	8.25	91.7%		0.0%		0.0%			8.25	20.0%
Cardboard	0.15	3.1%	0.30	3.8%				0.0%	0.10	1.3%			0.55	1.3%
Organic Waste (if applicable)	0.60	12.5%	1.25	15.9%	0.05	0.2%	3.90	33.9%	0.40	5.0%			6.20	15.1%
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	0.10	2.1%	0.10	1.3%			0.15	1.3%		0.0%			0.35	0.9%
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%
Yard Waste		0.0%		0.0%				0.0%		0.0%			0.00	0.0%
Coffee Cups	0.15	3.1%	0.25	3.2%	0.05	0.6%	0.35	3.0%	2.90	36.3%			3.70	9.0%
Other / Non recyclable	2.50	52.1%	4.60	58.6%	0.35	4.1%	5.20	45.2%	1.90	23.8%	0.00		14.55	35.4%
QAQC Check	4.80	100.0%	7.85	100.0%	9.00	99.7%	11.50	100.0%	8.00	100.0%	0.00	0.0%	41.15	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: Institute of Child Studies

Date: Apr-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other (1)		Total	
Total Weight of Sample (in kg):											6.90		6.90	
Total Percent of Sample (in %):	0.0%		0.0%		0.0%		0.0%		0.0%		100.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers											1.20	17.4%	1.20	17.4%
Mixed Papers											0.20	2.9%	0.20	2.9%
Paper Towels											0.40	5.8%	0.40	5.8%
Cardboard												0.0%	0.00	0.0%
Organic Waste (if applicable)												0.0%	0.00	0.0%
Large items												0.0%	0.00	0.0%
Electronics/e-Waste												0.0%	0.00	0.0%
Scrap metal												0.0%	0.00	0.0%
Wood												0.0%	0.00	0.0%
Styrofoam											0.10	1.4%	0.10	1.4%
Lab Waste												0.0%	0.00	0.0%
Plastic Wrap												0.0%	0.00	0.0%
Yard Waste												0.0%	0.00	0.0%
Coffee Cups												0.0%	0.00	0.0%
Other / Non recyclable											5.00	72.5%	5.00	72.5%
QAQC Check	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	6.90	100.0%	6.90	100.0%

General Comments and Observations:

Note 1: Sample bags unmarked according to collection area.

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Health Sciences
Date: Mar-19-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	4.20		15.50		4.65								24.35	
Total Percent of Sample (in %):	17.2%		63.7%		19.1%		0.0%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.45	10.7%	2.20	14.2%	0.20	4.3%							2.85	11.7%
Mixed Papers	0.25	6.0%	1.40	9.0%	0.20	4.3%							1.85	7.6%
Paper Towels		0.0%		0.0%	3.90	83.9%							3.90	16.0%
Cardboard		0.0%	0.20	1.3%		0.0%							0.20	0.8%
Organic Waste (if applicable)	0.70	16.7%	3.10	20.0%		0.0%							3.80	15.6%
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%	0.70	4.5%		0.0%							0.70	2.9%
Styrofoam		0.0%	0.20	1.3%		0.0%							0.20	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%
Yard Waste		0.0%		0.0%		0.0%							0.00	0.0%
Coffee Cups	0.30	7.1%	3.10	20.0%	0.10	2.2%							3.50	14.4%
Other / Non recyclable	2.50	59.5%	4.60	29.7%	0.25	5.4%	0.00				0.00		7.35	30.2%
QAQC Check	4.20	100.0%	15.50	100.0%	4.65	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	24.35	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Earth Sciences Centre
Date: Mar-18-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	5.80		8.50						4.50				18.80	
Total Percent of Sample (in %):	30.9%		45.2%		0.0%		0.0%		23.9%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.50	8.6%	1.10	12.9%					0.75	16.7%			2.35	12.5%
Mixed Papers	0.70	12.1%	0.65	7.6%					0.90	20.0%			2.25	12.0%
Paper Towels		0.0%		0.0%						0.0%			0.00	0.0%
Cardboard	0.20	3.4%	0.20	2.4%						0.0%			0.40	2.1%
Organic Waste (if applicable)	1.40	24.1%	1.60	18.8%						0.0%			3.00	16.0%
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	0.10	1.7%	0.20	2.4%					0.10	2.2%			0.40	2.1%
Lab Waste		0.0%		0.0%					0.20	4.4%			0.20	1.1%
Plastic Wrap		0.0%		0.0%						0.0%			0.00	0.0%
Yard Waste		0.0%		0.0%						0.0%			0.00	0.0%
Coffee Cups	0.25	4.3%	0.55	6.5%					0.30	6.7%			1.10	5.9%
Other / Non recyclable	2.65	45.7%	4.20	49.4%					2.25	50.0%			9.10	48.4%
QAQC Check	5.80	100.0%	8.50	100.0%	0.00	0.0%	0.00	0.0%	4.50	100.0%	0.00	0.0%	18.80	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Dental
Date: Mar-17-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	4.40		14.00				12.40		127.60		4.50		162.90	
Total Percent of Sample (in %):	2.7%		8.6%		0.0%		7.6%		78.3%		2.8%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.45	10.2%	2.35	16.8%			1.55	12.5%	20.15	15.8%		0.0%	24.50	15.0%
Mixed Papers	0.20	4.5%	1.20	8.6%			0.75	6.0%	13.00	10.2%		0.0%	15.15	9.3%
Paper Towels	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%		0.0%	0.00	0.0%
Cardboard	0.20	4.5%	0.25	1.8%			0.60	4.8%	2.15	1.7%		0.0%	3.20	2.0%
Organic Waste (if applicable)	0.65	14.8%	3.40	24.3%			4.20	33.9%	0.00	0.0%		0.0%	8.25	5.1%
Large items	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%		0.0%	0.00	0.0%
Electronics/e-Waste	0.00	0.0%	0.30	2.1%				0.0%	0.00	0.0%		0.0%	0.30	0.2%
Scrap metal	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%		0.0%	0.00	0.0%
Wood	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%	4.50	100.0%	4.50	2.8%
Styrofoam	0.05	1.1%	0.15	1.1%			0.20	1.6%	2.55	2.0%		0.0%	2.95	1.8%
Lab Waste	0.00	0.0%	0.00	0.0%				0.0%	51.75	40.6%		0.0%	51.75	31.8%
Plastic Wrap	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%		0.0%	0.00	0.0%
Yard Waste	0.00	0.0%	0.00	0.0%				0.0%	0.00	0.0%		0.0%	0.00	0.0%
Coffee Cups	0.25	5.7%	1.00	7.1%			0.90	7.3%	1.00	0.8%		0.0%	3.15	1.9%
Other / Non recyclable	2.60	59.1%	5.35	38.2%			4.20	33.9%	37.00	29.0%		0.0%	49.15	30.2%
QAQC Check	4.40	100.0%	14.00	100.0%	0.00	0.0%	12.40	100.0%	127.60	100.0%	4.50	100.0%	162.90	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Sidney Smith
Date: Mar-16-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	11.25		15.00				16.35						42.60	
Total Percent of Sample (in %):	26.4%		35.2%		0.0%		38.4%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.75	6.7%	1.80	12.0%			1.50	9.2%					4.05	9.5%
Mixed Papers	1.40	12.4%	0.50	3.3%			0.45	2.8%					2.35	5.5%
Paper Towels	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Cardboard	0.15	1.3%	0.00	0.0%			0.15	0.9%					0.30	0.7%
Organic Waste (if applicable)	0.00	0.0%	2.35	15.7%			5.25	32.1%					7.60	17.8%
Large items	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Electronics/e-Waste	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Scrap metal	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Wood	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Styrofoam	0.00	0.0%	0.15	1.0%			0.05	0.3%					0.20	0.5%
Lab Waste	0.00	0.0%	0.00	0.0%			0.00	0.0%					0.00	0.0%
Plastic Wrap	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%
Coffee Cups	0.35	3.1%	0.60	4.0%			0.80	4.9%					1.75	4.1%
Other / Non recyclable	8.60	76.4%	9.60	64.0%			8.15	49.8%					26.35	61.9%
QAQC Check	11.25	100.0%	15.00	100.0%	0.00	0.0%	16.35	100.0%	0.00	0.0%	0.00	0.0%	42.60	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: CCBR
Date: Mar-17-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			27.35						33.85				61.20	
Total Percent of Sample (in %):	0.0%		44.7%		0.0%		0.0%		55.3%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.15	0.5%					4.20	12.4%			4.35	7.1%
Mixed Papers			3.30	12.1%					3.10	9.2%			6.40	10.5%
Paper Towels				0.0%						0.0%			0.00	0.0%
Cardboard			0.20	0.7%					0.10	0.3%			0.30	0.5%
Organic Waste (if applicable)			2.80	10.2%						0.0%			2.80	4.6%
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			0.55	2.0%					1.00	3.0%			1.55	2.5%
Lab Waste				0.0%						0.0%			0.00	0.0%
Plastic Wrap				0.0%						0.0%			0.00	0.0%
Yard Waste				0.0%						0.0%			0.00	0.0%
Coffee Cups			2.50	9.1%					0.10	0.3%			2.60	4.2%
Other / Non recyclable			17.85	65.3%					25.35	74.9%			43.20	70.6%
QAQC Check	0.00	0.0%	27.35	100.0%	0.00	0.0%	0.00	0.0%	33.85	100.0%	0.00	0.0%	61.20	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Connaught Labs
Date: Mar-15-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			1.35		0.80		1.95		1.35				5.45	
Total Percent of Sample (in %):	0.0%		24.8%		14.7%		35.8%		24.8%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.10	7.4%		0.0%	0.20	10.3%	0.15	11.1%			0.45	8.3%
Mixed Papers			0.30	22.2%		0.0%	0.20	10.3%	0.55	40.7%			1.05	19.3%
Paper Towels				0.0%	0.75	93.8%		0.0%		0.0%			0.75	13.8%
Cardboard				0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Organic Waste (if applicable)			0.20	14.8%		0.0%	0.40	20.5%		0.0%			0.60	11.0%
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%	0.10	7.4%			0.10	1.8%
Styrofoam				0.0%		0.0%	0.05	2.6%		0.0%			0.05	0.9%
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%
Yard Waste				0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Coffee Cups			0.25	18.5%		0.0%	0.35	17.9%	0.05	3.7%			0.65	11.9%
Other / Non recyclable			0.50	37.0%	0.05	6.3%	0.75	38.5%	0.50	37.0%			1.80	33.0%
QAQC Check	0.00	0.0%	1.35	100.0%	0.80	100.0%	1.95	100.0%	1.35	100.0%			5.45	100.0%

General Comments and Observations:

Note 1:
Note 2:
Note 3:

Waste Audit Data Collection Sheet

Client: University of Toronto
Job Site: Best
Date: Mar-18-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	1.15		1.30		1.25		1.00		8.10				12.80	
Total Percent of Sample (in %):	9.0%		10.2%		9.8%		7.8%		63.3%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.20	17.4%	0.15	11.5%		0.0%	0.10	10.0%	0.70	8.6%			1.15	9.0%
Mixed Papers	0.10	8.7%	0.30	23.1%		0.0%	0.10	10.0%	0.90	11.1%			1.40	10.9%
Paper Towels		0.0%		0.0%	1.05	84.0%		0.0%		0.0%			1.05	8.2%
Cardboard		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Organic Waste (if applicable)	0.25	21.7%	0.30	23.1%		0.0%	0.50	50.0%		0.0%			1.05	8.2%
Large items		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Electronics/e-Waste		0.0%		0.0%		0.0%		0.0%	0.15	1.9%			0.15	1.2%
Scrap metal		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Wood		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Styrofoam	0.05	4.3%	0.05	3.8%		0.0%	0.05	5.0%		0.0%			0.15	1.2%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%			0.00	0.0%
Plastic Wrap		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%
Coffee Cups	0.15	13.0%	0.30	23.1%		0.0%	0.10	10.0%	0.20	2.5%			0.75	5.9%
Other / Non recyclable	0.40	34.8%	0.20	15.4%	0.20	16.0%	0.15	15.0%	6.15	75.9%			7.10	55.5%
QAQC Check	1.15	100.0%	1.30	100.0%	1.25	100.0%	1.00	100.0%	8.10	100.0%	0.00	0.0%	12.80	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: BCIT
Date: Mar-16-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):	8.65		15.55		11.00		10.65		5.10		5.50		56.45	
Total Percent of Sample (in %):	15.3%		27.5%		19.5%		18.9%		9.0%		9.7%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	1.50	17.3%	2.10	13.5%	0.50	4.5%	1.20	11.3%	0.40	7.8%	0.75	13.6%	6.45	11.4%
Mixed Papers	2.00	23.1%	0.90	5.8%	2.00	18.2%	1.40	13.1%	0.85	16.7%	0.35	6.4%	7.50	13.3%
Paper Towels		0.0%		0.0%	7.15	65.0%		0.0%		0.0%		0.0%	7.15	12.7%
Cardboard		0.0%		0.0%	0.15	1.4%		0.0%		0.0%	0.10	1.8%	0.25	0.4%
Organic Waste (if applicable)	0.50	5.8%	3.45	22.2%	0.25	2.3%	2.70	25.4%	0.35	6.9%	1.00	18.2%	8.25	14.6%
Large items		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Electronics/e-Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Scrap metal		0.0%		0.0%		0.0%		0.0%		0.0%	0.05	0.9%	0.05	0.1%
Wood		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Styrofoam	0.15	1.7%	0.65	4.2%		0.0%	0.40	3.8%	0.20	3.9%	0.05	0.9%	1.45	2.6%
Lab Waste		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Plastic Wrap		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%
Coffee Cups	0.70	8.1%	1.30	8.4%	0.30	2.7%	0.40	3.8%		0.0%	0.15	2.7%	2.85	5.0%
Other / Non recyclable	3.80	43.9%	7.15	46.0%	0.65	5.9%	4.55	42.7%	3.30	64.7%	3.05	55.5%	22.50	39.9%
QAQC Check	8.65	100.0%	15.55	100.0%	11.00	100.0%	10.65	100.0%	5.10	100.0%	5.50	100.0%	56.45	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: UofT Schools
Date: Mar-17-10

Area of Collection:	Office & Admin		Hallways, Classrooms, Public Spaces		Washrooms		Food Services/ Cafeteria		Labs		Other		Total	
Total Weight of Sample (in kg):			3.25										3.25	
Total Percent of Sample (in %):	0.0%		100.0%		0.0%		0.0%		0.0%		0.0%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers			0.60	18.5%									0.60	18.5%
Mixed Papers			0.55	16.9%									0.55	16.9%
Paper Towels				0.0%									0.00	0.0%
Cardboard			0.10	3.1%									0.10	3.1%
Organic Waste (if applicable)				0.0%									0.00	0.0%
Large items				0.0%									0.00	0.0%
Electronics/e-Waste				0.0%									0.00	0.0%
Scrap metal				0.0%									0.00	0.0%
Wood				0.0%									0.00	0.0%
Styrofoam			0.05	1.5%									0.05	1.5%
Lab Waste				0.0%									0.00	0.0%
Plastic Wrap				0.0%									0.00	0.0%
Yard Waste				0.0%									0.00	0.0%
Coffee Cups			0.40	12.3%									0.40	12.3%
Other / Non recyclable			1.55	47.7%									1.55	47.7%
QAQC Check	0.00	0.0%	3.25	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	3.25	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 Sheet

Client: University of Toronto

Bags of Mixed Containers (2yd3 bin)

Bag#	Jul30/09 Weight kg
1	1.50
2	3.50
3	1.25
4	1.85
5	2.70
6	3.80
7	2.00
8	2.20
9	3.30
10	4.80
11	3.40
12	2.50
13	3.10
14	4.60
15	2.30
16	3.90
Total	46.70
Average	**2.92**

Waste Audit Data Collection Sheet

Client: University of Toronto

Job Site: Random Outdoor Multi Sort Depots

Date: Apr-10

	Waste Compartment									
Area of Collection:	321 Bloor		150 St. George		60 St. George		2 Sussex		Total	
Total Weight of Sample (in kg):	1.20		3.75		3.20		6.30		14.45	
Total Percent of Sample (in %):	8.3%		26.0%		22.1%		43.6%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.20	16.7%	0.35	9.3%	0.15	4.7%	0.55	8.7%	1.25	8.7%
Mixed Papers	0.10	8.3%	0.25	6.7%	0.20	6.3%	0.45	7.1%	1.00	6.9%
Paper Towels		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Cardboard	0.05	4.2%		0.0%	0.10	3.1%		0.0%	0.15	1.0%
Organic Waste (if applicable)		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
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	4.2%		0.0%	0.05	1.6%	0.05	0.8%	0.15	1.0%
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%
Yard Waste		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Coffee Cups	0.10	8.3%	0.20	5.3%	0.35	10.9%	0.25	4.0%	0.90	6.2%
Other / Non recyclable	0.70	58.3%	2.95	78.7%	2.35	73.4%	5.00	79.4%	11.00	76.1%
QAQC Check	1.20	100%	3.75	100%	3.20	100%	6.30	100%	14.45	100%
Contamination Rate		**33.3%**		**21.3%**		**21.9%**		**19.8%**		**21.8%**

	Mixed Container Compartment									
Area of Collection:	321 Bloor		150 St. George		60 St. George		2 Sussex		Total	
Total Weight of Sample (in kg):	2.05		1.75		2.50		2.40		8.70	
Total Percent of Sample (in %):	23.6%		20.1%		28.7%		27.6%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	1.85	90.2%	1.75	100.0%	2.15	86.0%	2.25	93.8%	8.00	92.0%
Mixed Papers	0.20	9.8%		0.0%	0.30	12.0%	0.15	6.3%	0.65	7.5%
Paper Towels		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Cardboard		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Organic Waste (if applicable)		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
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%	0.05	2.0%		0.0%	0.05	0.6%
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%
Yard Waste		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Coffee Cups		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Other / Non recyclable		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
QAQC Check	2.05	100%	1.75	100%	2.50	100%	2.40	100%	8.70	100%
Contamination Rate		**9.8%**		**0.0%**		**14.0%**		**6.3%**		**8.0%**

	Mixed Paper Compartment									
Area of Collection:	321 Bloor		150 St. George		60 St. George		2 Sussex		Total	
Total Weight of Sample (in kg):	1.90		7.90		2.00		6.50		18.30	
Total Percent of Sample (in %):	10.4%		43.2%		10.9%		35.5%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers		0.0%	0.40	5.1%	0.20	10.0%		0.0%	0.60	3.3%
Mixed Papers	1.70	89.5%	5.15	65.2%	1.75	87.5%	6.10	93.8%	14.70	80.3%
Paper Towels		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Cardboard		0.0%		0.0%		0.0%	0.40	6.2%	0.40	2.2%
Organic Waste (if applicable)		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
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%	0.20	2.5%		0.0%		0.0%	0.20	1.1%
Styrofoam		0.0%		0.0%	0.05	2.5%		0.0%	0.05	0.3%
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%
Yard Waste		0.0%	1.90	24.1%		0.0%		0.0%	1.90	10.4%
Coffee Cups	0.20	10.5%	0.25	3.2%		0.0%		0.0%	0.45	2.5%
Other / Non recyclable		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
QAQC Check	1.90	100%	7.90	100%	2.00	100%	6.50	100%	18.30	100%
Contamination Rate		**10.5%**		**34.8%**		**12.5%**		**6.2%**		**19.7%**

	Coffee Cup Compartment									
Area of Collection:	321 Bloor		150 St. George		60 St. George		2 Sussex		Total	
Total Weight of Sample (in kg):	2.15		2.75		1.70		2.30		8.90	
Total Percent of Sample (in %):	24.2%		30.9%		19.1%		25.8%		100.0%	
Composition of Garbage:	kg	%	kg	%	kg	%	kg	%	kg	%
Mixed Containers	0.20	9.3%	0.20	7.3%	0.30	17.6%	0.50	21.7%	1.20	13.5%
Mixed Papers	0.15	7.0%	0.20	7.3%	0.15	8.8%	0.25	10.9%	0.75	8.4%
Paper Towels		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Cardboard		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Organic Waste (if applicable)		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
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%	0.05	2.9%	0.05	2.2%	0.10	1.1%
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%
Yard Waste		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
Coffee Cups	1.80	83.7%	2.35	85.5%	1.20	70.6%	1.50	65.2%	6.85	77.0%
Other / Non recyclable		0.0%		0.0%		0.0%		0.0%	0.00	0.0%
QAQC Check	2.15	100%	2.75	100%	1.70	100%	2.30	100%	8.90	100%
Contamination Rate		**16.3%**		**14.5%**		**29.4%**		**34.8%**		**23.0%**

General Comments and Observations:

Note 1: Location 1: 321 Bloor St
Location 2: 150 St. George St
Location 3: 60 St. George St
Location 4: 2 Sussex Ave

APPENDIX 2

UofT Waste Audit March 2010 - Compactor Summary

March 22, 2010: Load #1 – 155 College (Health Sciences Building)

The following materials were found:
- Paper towels (full bags)
- Mixed containers
- HDPE pails with broken glass (decomtaminated)
- Cardboard
- Styrofoam

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

March 22, 2010: Load #2 – 100 St. George (Sidney Smith Hall)

The following materials were found:
- Paper towels (full bags)
- Mixed containers (full bags)
- Styrofoam (bags of rigid foam pieces)
- Mixed papers (full bags)
- Cardboard
- eWaste (computer parts)
- Tin foil trays

	
Full bag of mixed containers	Full bags paper towels

	
Computer parts	Cardboard and Mixed papers

March 23, 2010: Load #1 – 252 Bloor St (OISE)

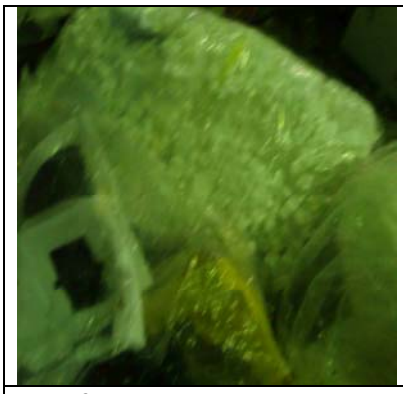
The following materials were found:
- Cardboard
- Full bags paper towels
- Mixed containers
- Styrofoam
- Some paper & newsprint

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

March 23, 2010: Load #2 – 40 St. George St (BCIT)

The following materials were found:

- eWaste (Computer parts)
- Styrofoam
- Mixed papers
- Mixed contaiers
- Cardboard

	
Styrofoam	eWaste
	
Mixed containers	Cardboard

March 24, 2010: Load #1 – 1 Kings College Circle (Medical Sciences)

The following materials were found:

- Considerable amounts of cardboard
- Styrofoam (peanuts & blocks)
- HDPE Pails
- Syringes, lab materials

	
Cardboard	Cardboard

	
Styrofoam (peanuts)	HDPE Pails

March 24, 2010: Load #2 – 160 College St (CCBR)

The following materials were found:
- Styrofoam (peanuts & blocks)
- Full bags of paper & newsprint
- Scrap Metal
- HDPE Trays
- Cardboard
- Toner cartridges
- HDPE Pails with Broken Glass

	
Styrofoam (blocks)	Full bag of mixed papers
	
Scrap metals	Toner Cartridges

March 25, 2010: Load #1 – 369 Huron St (Robarts Library)

The following materials were found:

- Mixed containers
- Mixed papers
- Cardboard
- Paper towels

	
Mixed containers	Cardboard
	
Mixed papers	Paper towels

March 26, 2010: Load #1 – 1 Spadina Cres (Connaught – Open Bin)

The following materials were found:

- Full bags of mixed papers
- Scrap wood (Broken pallet)
- Chair
- Styrofoam
- Mixed containers

	
Chair	Full bag of mixed papers
	
Scrap wood	Styrofoam & Containers

March 29, 2010: Load #1 – 89 Chestnut St (Chestnut Residence)

The following materials were found:

- Full bags of paper & newsprint
- Scrap Wood (broken pallet)
- Two chairs
- eWaste (computers)
- mixed containers
- Styrofoam

	
Mixed papers	eWaste

	
Chair	Mixed containers

March 29, 2010: Load #2 – 21 Classics Ave (New College)

The following materials were found:
- Scrap metal
- Scrap wood (Broken pallets)
- Cardboard
- Styrofoam
- Mixed papers/boxboard
- Mixed containers
- Paper towels

	
Scrap Metal	Full bags of mixed containers
	
Scrap wood	Cardboard

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

Name of Owner and/or Operator of Entity(ies) and Company Name: University of Toronto		
Name of Contact Person: Reno Strano	**Telephone #:** 416-946-5711	**Email address:** Reno.strano@utoronto.ca
Street Address(es) of Entity(ies): 487 Spadina Ave		
Municipality: Toronto, Ontario		

	Type of Entity (check one)		
Retail Shopping Establishments		Hotels and Motels	
Retail Shopping Complexes		Hospitals	
Office Buildings		Educational Institutions	x
Restaurants		Large Manufacturing Establishments	

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

II. DESCRIPTION OF ENTITY

Provide a brief overview of the entity(ties):

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.

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.
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 & ABS	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.

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V. ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY

	Estimated Amount of Waste Produced kgs or tonnes (t)											
	Generated			Reused			Recycled			Disposed		
Categories of Waste	"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	88.39	127.78	-39.39			0.00	64.12	104.58	-40.46	24.27	23.20	1.08
Cardboard	357.28	360.51	-3.23			0.00	319.35	324.26	-4.91	37.93	36.25	1.68
Fine paper	775.70	844.14	-68.44			0.00	688.54	760.83	-72.30	87.17	83.31	3.86
Glass food and beverage bottles/jars	17.68	25.56	-7.88			0.00	12.82	20.92	-8.09	4.85	4.64	0.22
Newsprint	193.93	211.04	-17.11			0.00	172.13	190.21	-18.07	21.79	20.83	0.96
Steel food and beverage cans	0.00	0.00	0.00			0.00			0.00			0.00
PET (#1) plastic food and beverage bottles	247.50	357.78	-110.28			0.00	179.54	292.82	-113.29	67.96	64.95	3.01
HDPE (#2) plastic jugs, crates, totes, drums	0.00	0.00	0.00			0.00			0.00			0.00
LDPE (#4) plastic film	0.00	0.00	0.00			0.00			0.00			0.00
Polystyrene (#6)	29.94	28.79	1.15			0.00	4.08	4.08	0.00	25.86	24.71	1.15
Organics	1,389.08	1,443.91	-54.83			0.00	1,274.18	1,334.10	-59.92	114.90	109.81	5.09
Boxboard shoe boxes, cereal boxes, etc.	0.50	0.00	0.50			0.00			0.00	0.50		0.50
Glossy magazines, catalogues, flyers	0.00	0.00	0.00			0.00			0.00			0.00
Wood	200.74	157.33	43.41			0.00	199.33	155.98	43.35	1.41	1.35	0.06
Steel	101.71	121.23	-19.52			0.00	100.80	120.36	-19.56	0.91	0.87	0.04
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	151.96	163.63	-11.67			0.00	66.24	81.70	-15.46	85.72	81.93	3.79
Printer cartridges	0.41	0.00	0.41			0.00	0.41	0.00	0.41			0.00
IT equipment/audio-visual equipment	60.64	70.81	-10.17			0.00	46.96	57.73	-10.77	13.68	13.08	0.60
Furniture	90.64	98.52	-7.88	90.64	98.52	-7.88			0.00			0.00
Building/renovation material	12.00	2.00	10.00			0.00	12.00	2.00	10.00			0.00
Disposable take out food packaging	0.00	0.00	0.00			0.00			0.00			0.00
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:	1,701.17	1,732.19	-31.02			0.00	117.37	223.65	-106.28	1,583.80	1,508.54	75.26
Total	**5,419.27**	**5,745.21**	**-325.94**	**90.64**	**98.52**	**-7.88**	**3,257.87**	**3,673.22**	**-415.35**	**2,070.76**	**1,973.47**	**97.29**
Percent Change (total C ÷ total A x 100)			**-6.01%**			**-8.69%**			**-12.75%**			**4.70%**

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.

_____
_____
_____
_____
_____
_____
_____

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.

_____
_____
_____
_____
_____
_____
_____

***** 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

Ministry of the Environment Waste Form

Report of a Waste Reduction Work Plan

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.

I. GENERAL INFORMATION

Name of Owner and/or Operator of Entity(ies) and Company Name: University of Toronto		
Name of Contact Person:	**Telephone #:**	**Email address:**
Street Address(es) of Entity(ies):		
Municipality:		

Type of Entity (check one)			
Retail Shopping Establishments		Hotels and Motels	
Retail Shopping Complexes		Hospitals	
Office Buildings		Educational Institutions	x
Restaurants		Large Manufacturing Establishments	

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

II. DESCRIPTION OF THE ENTITY

Provide a brief overview of the entity(ties):
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.

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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.

Waste Category (as stated in Part V of your "Report of a Waste Audit")	**Source Separation and 3Rs Program**
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.

Name of Person	**Responsibility**	**Telephone #**

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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.

Source Separation and 3Rs Program	Schedule for Completion
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 & ABS	
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	Same as for aluminum containers.
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	164.50	Bottles & Can Program		0.00	104.58	64%
Cardboard	347.57	Cardboard Program		0.00	324.26	93%
Fine paper	941.14	Paper Program		0.00	760.83	81%
Glass food and beverage bottles/jars	32.90	Bottles & Can Program		0.00	20.92	64%
Newsprint	235.28	Newsprint program		0.00	190.21	81%
Steel food and beverage cans	0.00	Bottles & Can Program		0.00	0.00	n/a
PET (#1) plastic food and beverage bottles	460.60	Bottles & Can Program		0.00	292.82	64%
HDPE (#2) plastic jugs, crates, totes, drums	0.00	n/a		0.00	0.00	n/a
LDPE (#4) plastic film	0.00	n/a		0.00	0.00	n/a
Polystyrene (#6)	35.00	Polystyrene Program		0.00	4.08	12%
Organics	1,505.43	Organics program		0.00	1,334.10	89%
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	175.76	Wood Program		0.00	155.98	89%
Steel	120.54	Scrap Metal Program		0.00	120.36	100%
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	234.48	Paper Towels Program		0.00	81.70	35%
Printer cartridges	0.00	Printer cartridges Program		0.00	0.00	n/a
IT equipment/audio-visual equipment	60.56	IT Program		0.00	57.73	95%
Furniture	98.52	Furniture Program		98.52	0.00	100%
Building/renovation material	2.00	Renovation Material Program		0.00	2.00	100%
Disposable take out food packaging	0.00	n/a		0.00	0.00	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:	1,330.93	Non-Recyclables		0.00	223.65	17%

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

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

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

FIGURES

Figure 1: Waste Audit Summary
University of Toronto

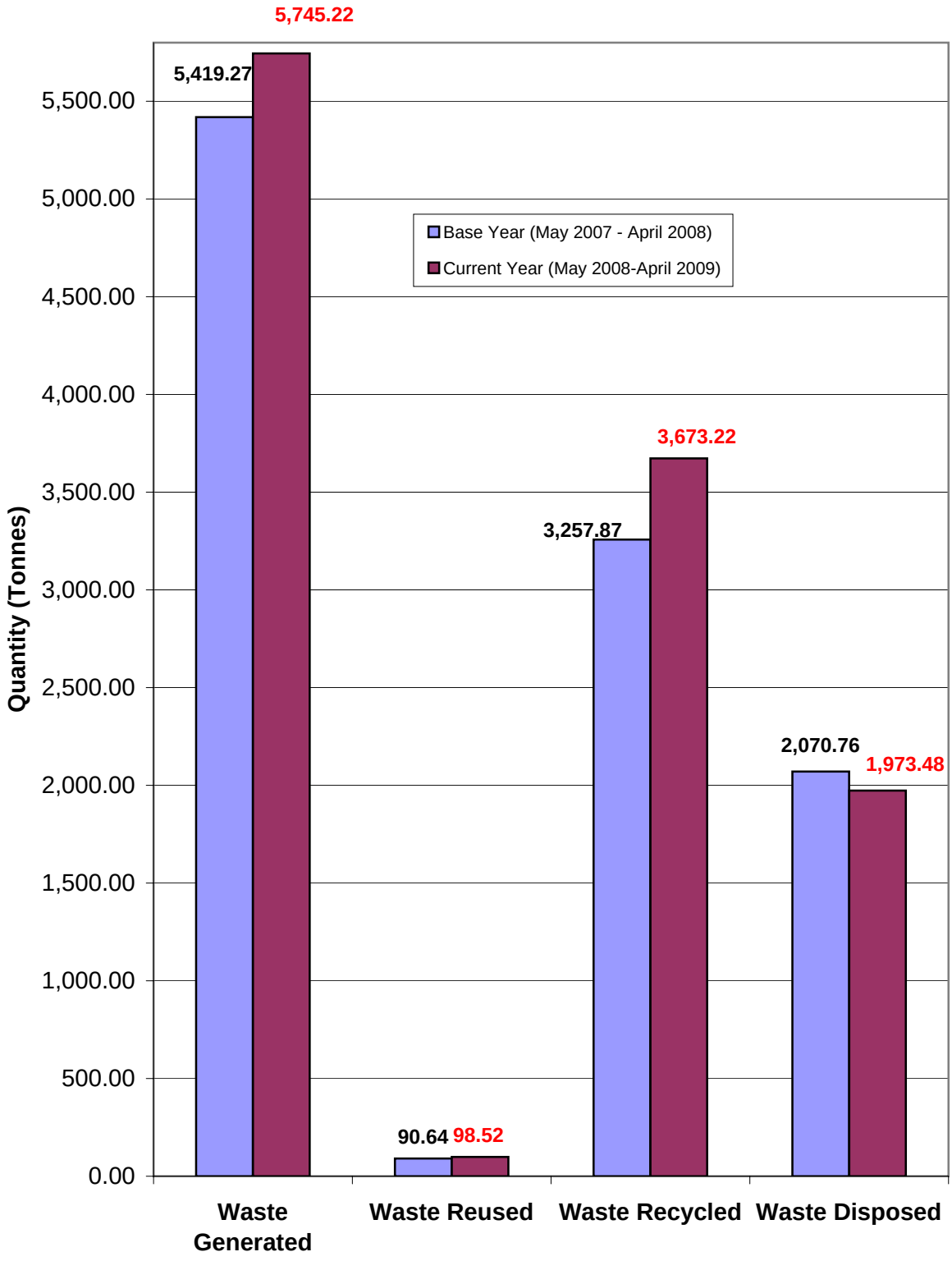

Figure 2: Waste Increase/Decrease (%)
University of Toronto
May 2008 - April 2009

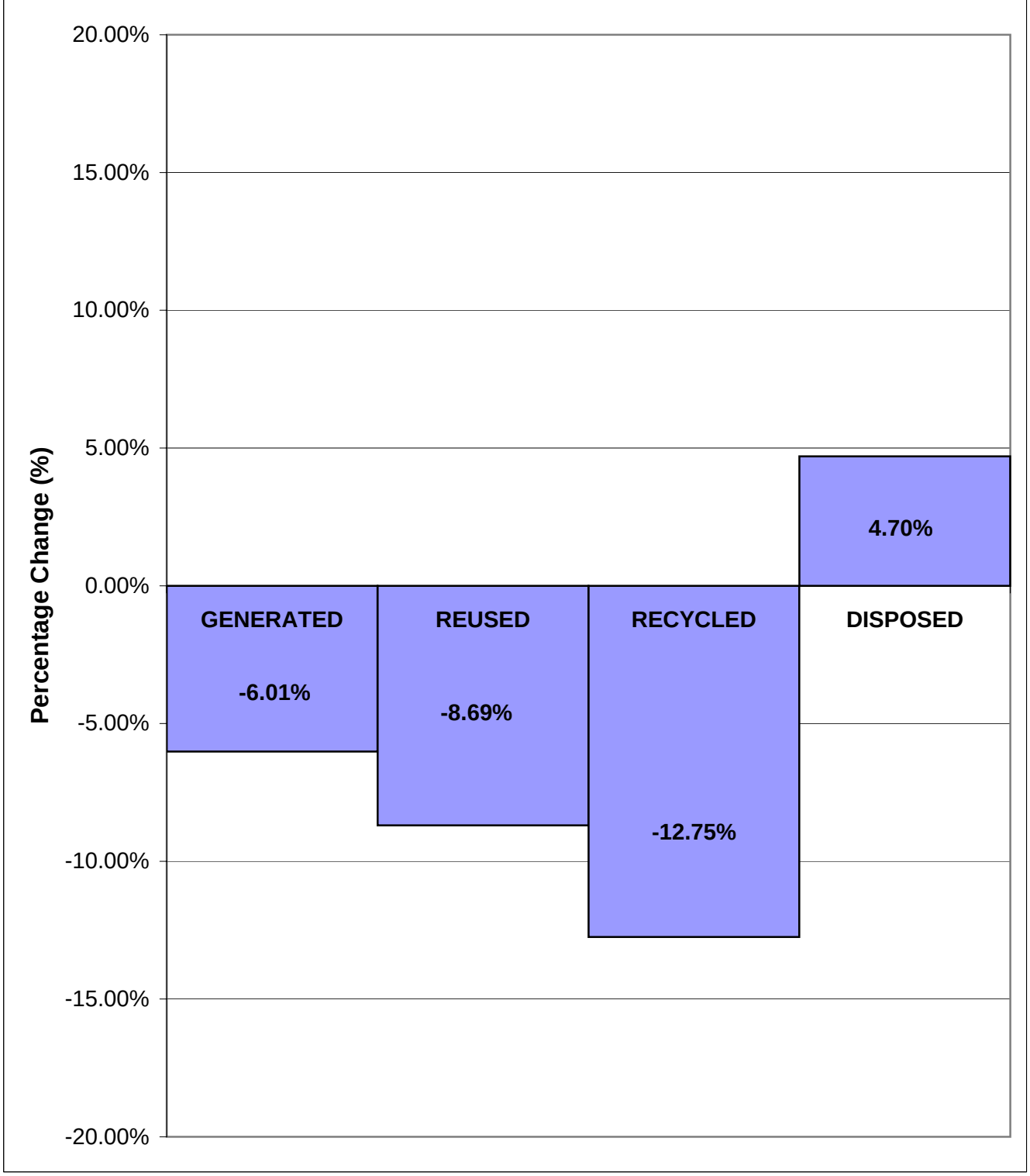

Figure 3 - Waste Diversion Summary (%)
University of Toronto

May 2008- April 2009

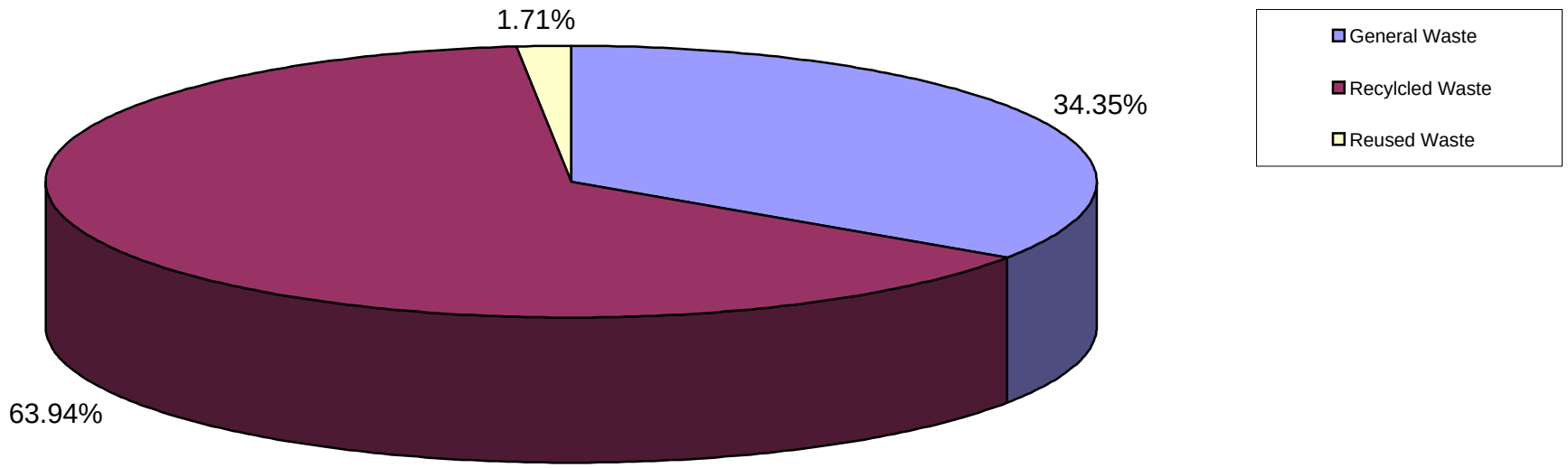

Figure 4 - Recycled Waste Diversion Summary (%)
University of Toronto

May 2008 - April 2009