



## **WASTE AUDIT REPORT**

**Queen's University  
Joseph S. Stauffer Library**

**101 Union Street  
Kingston, Ontario  
K7L 5C4**

**October 9<sup>th</sup>, 2014**

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## **EXECUTIVE SUMMARY**

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### **OVERVIEW**

Queen's University retained GFL Environmental to conduct a solid, non-hazardous waste audit for the Joseph S. Stauffer Library building (Stauffer Library), at 101 Union Street, in Kingston, Ontario. A point of generation waste audit was performed for the facility on October 9<sup>th</sup>, 2014.

### **PURPOSE**

The purpose of the waste audit was to identify, quantify and analyze the composition of the waste streams generated by the collective areas within the facility, and also to ensure compliance with the requirements outlined in The Ministry of the Environment Ontario (MOE) Regulations 102/94 and 103/94. The waste audits are also used to determine:

- The ability to reduce, reuse and recycle materials from the existing waste stream on a go forward basis
- Determine the composition of the waste and recycling streams and determine overall generation rates
- Identify the overall diversion and capture rates for all recyclable materials
- Identify further opportunities for greater diversion, and;
- Pinpoint new recycling opportunities, and to enhance and strengthen the existing recycling initiatives currently in place.

This analysis will also contribute to the formation of a waste reduction work plan for the building; a plan to go forward with the building of a successful diversion program will draw from the audit results and the subsequent diversion recommendations made by GFL Environmental, in partnership with input and insight from the Queen's University.

### **WASTE AUDIT METHODOLOGY**

The Stauffer Library currently utilizes 1, 8 cubic yard front end waste container for all solid, non-hazardous waste disposal and removal. To collect an appropriate sample of waste for the audit, Physical Plant Services employees collected all bags of waste from throughout the library, tagged the holding container indicating which part of the library the bags were from, and placed the carts in a designated area at the library loading dock. After the sample generation period (24 hours), the GFL team and some student volunteers gathered all of the bags for audit and analysis. An overall survey was completed by the GFL Environmental and Queen's University student audit team; bags were separated by stream (paper recycling, mixed materials and organics) and materials were sorted by commodity type (paper, plastic, metal, glass, organic and 'other'). The resulting sub categories and weights are listed in Appendix I (page 19). Each commodity type and sub category was weighed individually and photographs were taken for inclusion in the waste audit report.

### **REPORT**

The information contained in this waste audit report was gathered from the on site point of generation waste audit, discussions with Queen's University personnel, and an analysis of the current waste management handling practices used on site at the library.

### **ANOMALIES**

Anomalies are physical items or operational challenges that would alter the composition of the waste stream as a one off occurrence. No anomalies were found in the waste audit sample.



## **CURRENT WASTE HANDLING PROCESSES AND CONTAINERS**

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- Designated physical plant employees collect waste from all functional areas throughout the library.
- Wastes are then transferred into 1, 8 cubic yard front end waste container serviced six (6) days per week, Monday to Saturday, by a private contractor.



## **CURRENT RECYCLING INITIATIVES AND DIVERSION PROGRAM**

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The current recycling and diversion program in place at the Stauffer Library includes:

- Mixed Food and Beverage Containers (plastic, metal and glass food and beverage containers)
- Mixed Paper Fibres

Mixed food and beverage containers and mixed paper fibres are collected and placed into dedicated 3, 95 gallon recycling containers. The containers are emptied three times per week (Monday, Wednesday, and Friday), by a private contractor. Any cardboard generated on site at the library is removed by Physical Plant Services and brought to a central pick up location designated for cardboard.



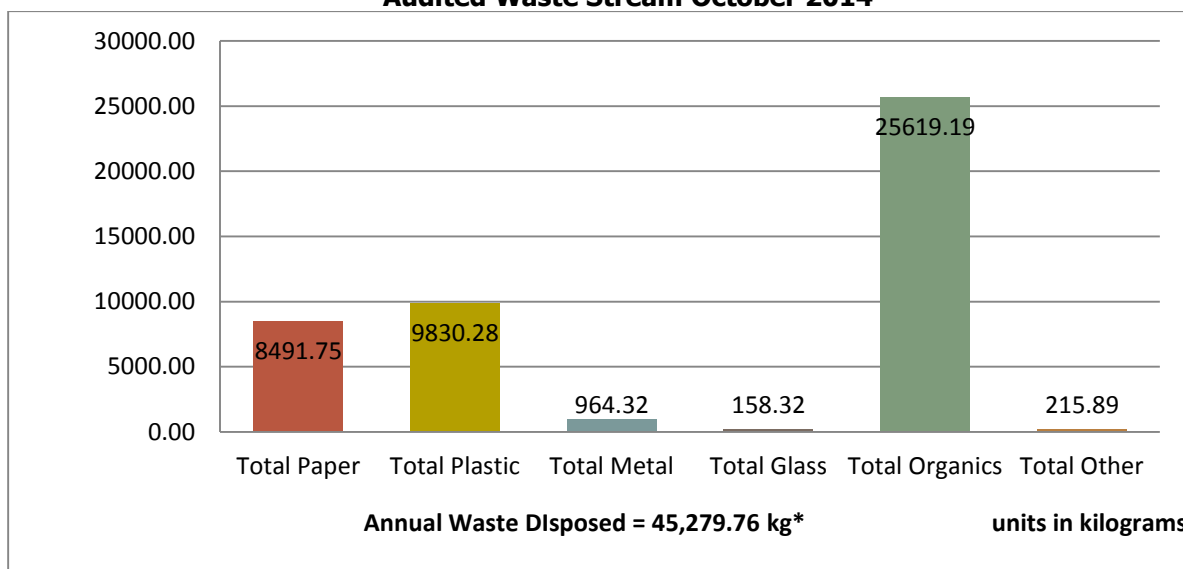
## SUMMARY OF WASTE AUDIT FINDINGS

Based on the sample of waste analyzed at the Stauffer Library at the time of the waste audit, the total amount of solid, non-hazardous waste generated is estimated to be 235.83 kilograms (kg) or 0.24 metric tonnes (t) during a 24-hour period and 45,279.76 kg (45.28 t) annually. From the audited waste sample, organic materials represent 56.58%; plastic materials represent 21.71%; paper materials represent 18.75%; metal materials represent 2.13%; 'other' materials represent 0.48%, and glass materials represent 0.35% of the total annual waste disposed and sent to landfill.

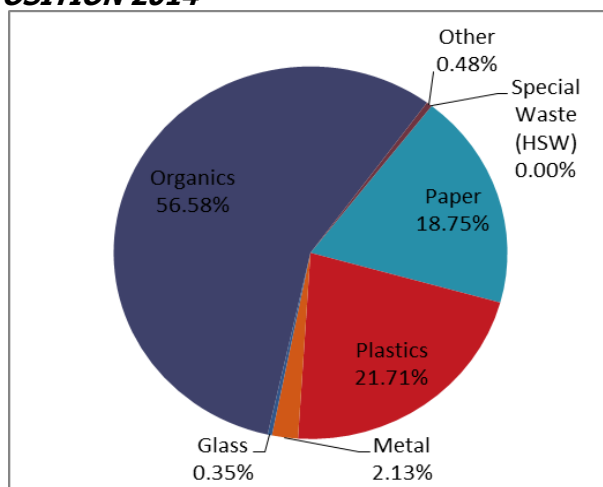
At present, the waste stream at the Stauffer Library contains recyclable materials for which programs for diversion are currently available:

### QUEEN'S UNIVERSITY- JOSEPH S. STAUFFER LIBRARY

#### **Audited Waste Stream October 2014**



#### **AUDITED WASTE COMPOSITION 2014**



*\*Based on waste audit sample.*



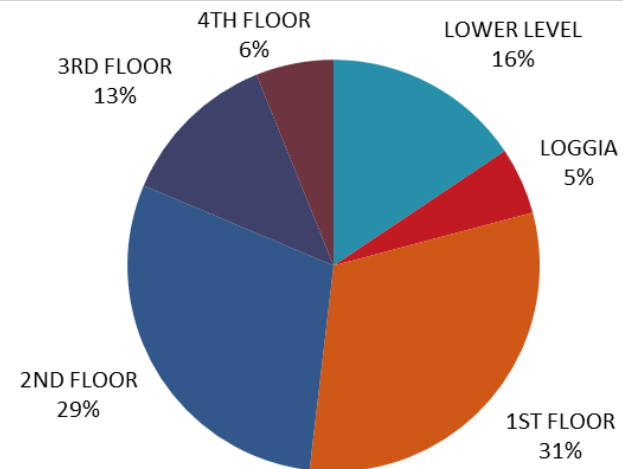
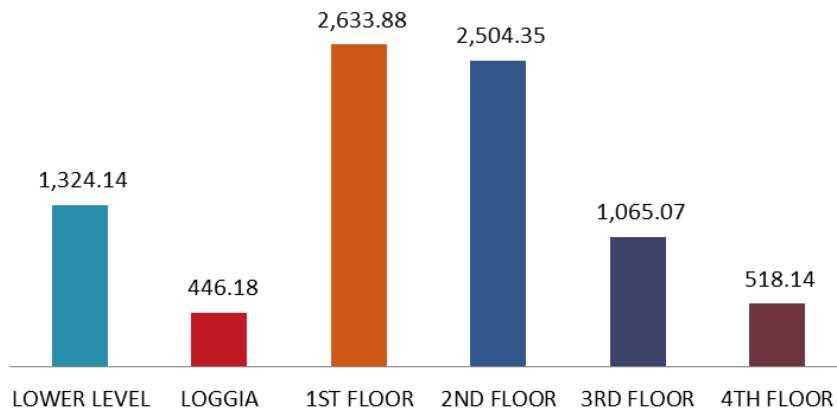
## WASTE GENERATED BY COMMODITY AND POINT OF GENERATION (PAPER KG/YR)

The following tables and charts are representative of the point of generation areas studied during the audit and the waste generated and disposed as landfill waste. Each page indicates the type of material and the breakdown of the subcategories found in the waste stream from the identified areas at the Stauffer Library.

### Summary of Annual Paper Material Findings (KG/YR)

	Newspaper	Magazines	Cardboard	Boxboard	Mixed Papers	Molded Pulp	Kraft Paper	Spiral Wound	Other Paper	Coffee Cups	Gable Top Cartons	Aseptic Containers	Total	Percentage of Total
LOWER LEVEL	-	-	-	28.79	14.39	-	14.39	-	115.14	1,122.64	28.79	-	1,324.14	15.59%
LOGGIA	43.18	-	-	86.36	57.57	14.39	57.57	-	-	172.71	14.39	-	446.18	5.25%
1ST FLOOR	403.00	172.71	-	374.21	431.78	28.79	86.36	-	201.50	863.57	57.57	14.39	2,633.88	31.02%
2ND FLOOR	575.71	-	-	14.39	14.39	28.79	14.39	-	834.78	1,007.50	14.39	-	2,504.35	29.49%
3RD FLOOR	28.79	28.79	-	57.57	28.79	28.79	57.57	-	115.14	690.85	28.79	-	1,065.07	12.54%
4TH FLOOR	-	14.39	-	57.57	28.79	28.79	14.39	-	86.36	259.07	14.39	14.39	518.14	6.10%
TOTAL	1,050.67	215.89	-	618.89	575.71	129.54	244.68	-	1,352.92	4,116.34	158.32	28.79	8,491.75	100.00%

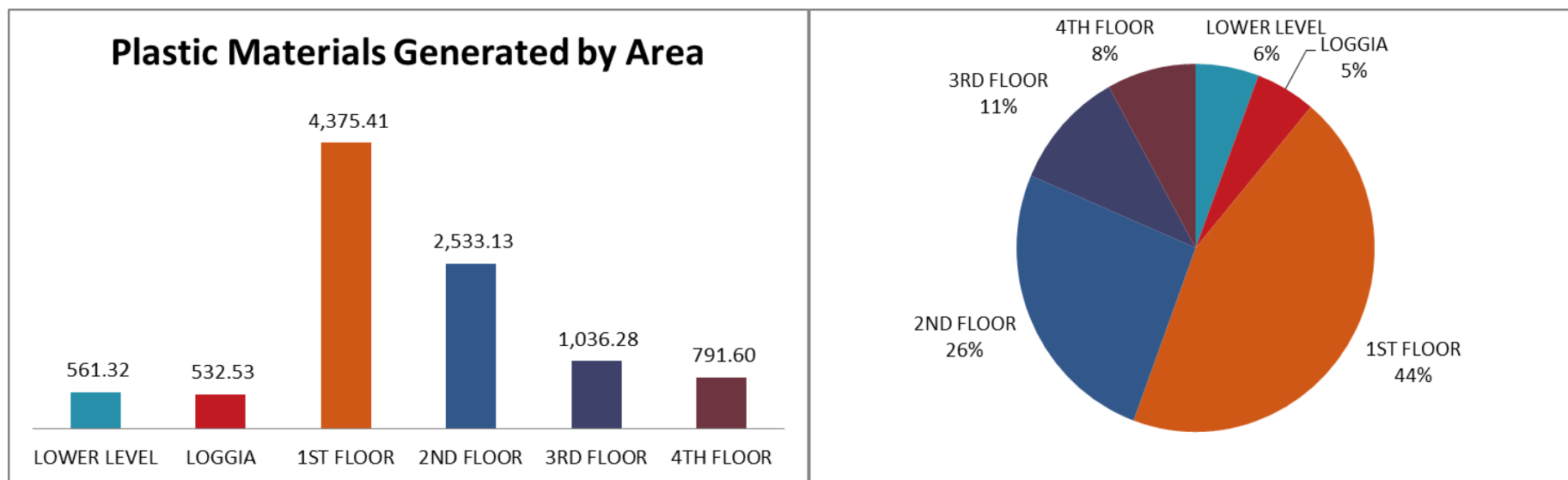
### Paper Materials Generated by Area



Paper fibres represent 18.75% of the waste audit sample.

### Summary of Annual Plastic Material Findings (KG/YR)

	# 1 PETE Soft Drinks	# 2 HDPE	# 3 PVC	# 4 LDPE Recyclable Film	# 5 PP	# 6 PS (Styrofoam)	# 6 PS (Clear/Hard)	# 7 Other	Non- Recyclable Film	Rigid Plastics	Plastic Strapping	Total	Percentage of Total
LOWER LEVEL	28.79	14.39	-	14.39	28.79	43.18	57.57	-	287.86	86.36	-	561.32	5.71%
LOGGIA	57.57	43.18	-	57.57	57.57	57.57	115.14	-	86.36	57.57	-	532.53	5.42%
1ST FLOOR	921.14	71.96	-	14.39	302.25	14.39	546.93	-	1,669.57	834.78	-	4,375.41	44.51%
2ND FLOOR	403.00	-	-	43.18	28.79	331.03	834.78	-	748.43	143.93	-	2,533.13	25.77%
3RD FLOOR	-	-	-	57.57	28.79	-	489.36	-	460.57	-	-	1,036.28	10.54%
4TH FLOOR	115.14	-	-	14.39	28.79	-	115.14	-	518.14	-	-	791.60	8.05%
TOTAL	1,525.64	129.54	-	201.50	474.96	446.18	2,158.92	-	3,770.91	1,122.64	-	9,830.28	100.00%

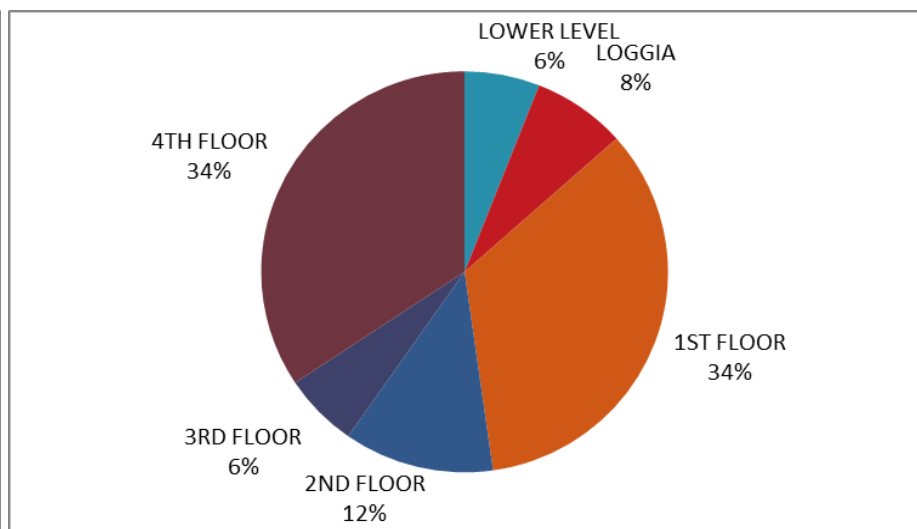
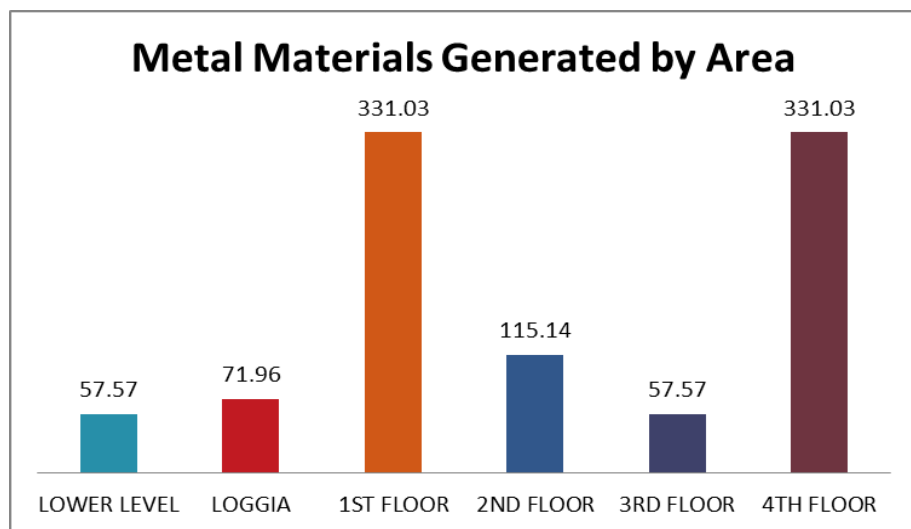


Plastic materials represent 21.71% of the waste audit sample.



### Summary of Annual Metal Material Findings (KG/YR)

	Aluminum Cans	Aluminum Foil	Steel	Aerosol Cans	Total	Percentage of Total
LOWER LEVEL	57.57	0.00	0.00	0.00	57.57	5.97%
LOGGIA	57.57	14.39	0.00	0.00	71.96	7.46%
1ST FLOOR	316.64	14.39	0.00	0.00	331.03	34.33%
2ND FLOOR	86.36	14.39	0.00	14.39	115.14	11.94%
3RD FLOOR	43.18	14.39	0.00	0.00	57.57	5.97%
4TH FLOOR	14.39	14.39	302.25	0.00	331.03	34.33%
TOTAL	575.71	71.96	302.25	14.39	964.32	100.00%

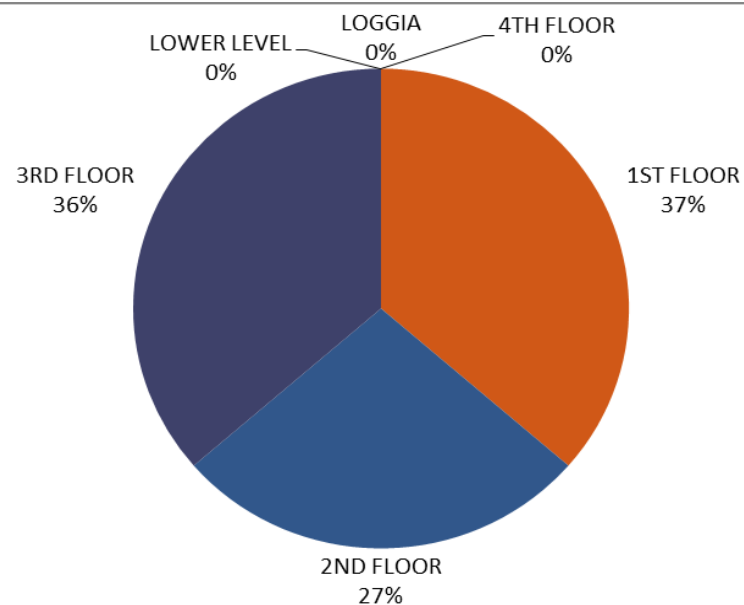
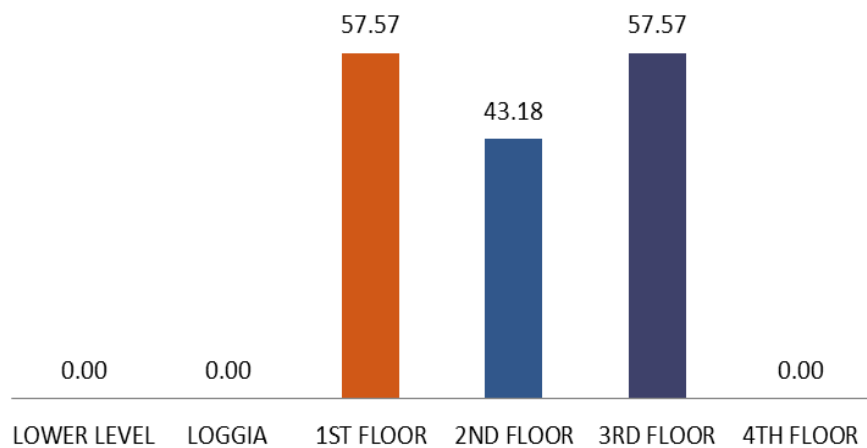


**Metal materials represent 2.13% of the waste audit sample.**

### Summary of Annual Glass Material Findings (KG/YR)

	LCBO Clear	LCBO Colour	Clear	Coloured	Other Glass	Total	Percentage of Total
LOWER LEVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
LOGGIA	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
1ST FLOOR	0.00	0.00	0.00	57.57	0.00	57.57	36.36%
2ND FLOOR	0.00	0.00	43.18	0.00	0.00	43.18	27.27%
3RD FLOOR	0.00	0.00	57.57	0.00	0.00	57.57	36.36%
4TH FLOOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
TOTAL	0.00	0.00	100.75	57.57	0.00	158.32	100.00%

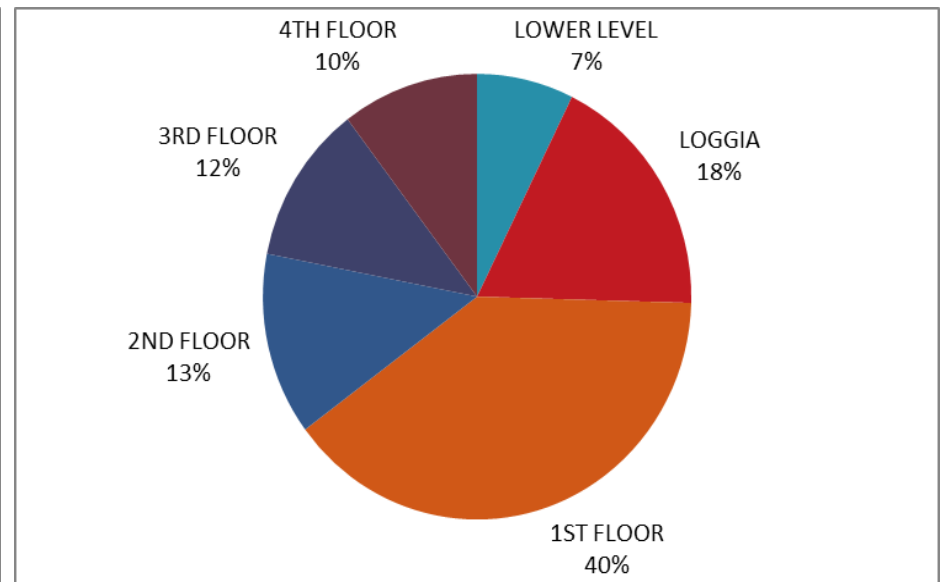
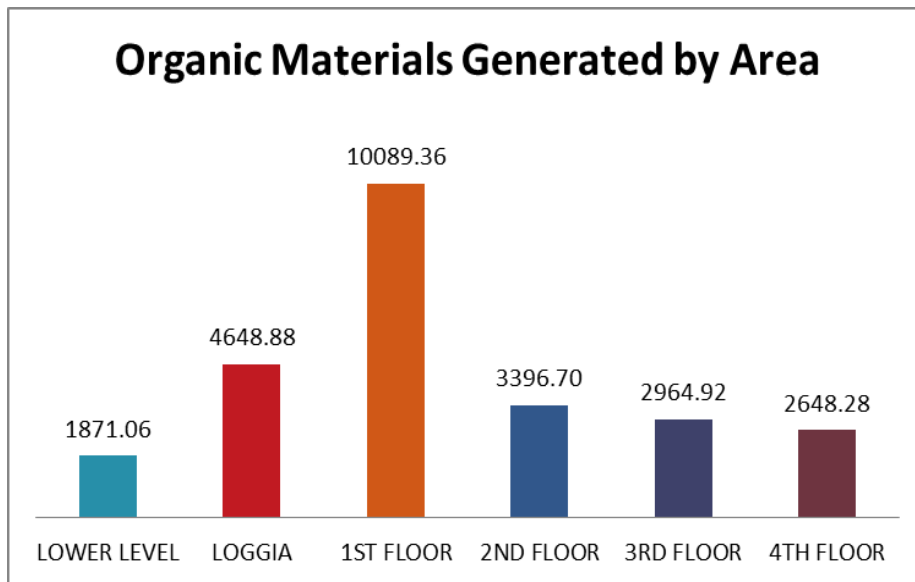
### Glass Materials Generated by Area



**Glass materials represent 0.35% of the waste audit sample.**

### Summary of Annual Organic Material Findings (KG/YR)

	Food Waste	Tissue / Toweling	Compostables	Total	Percentage of Total
LOWER LEVEL	1439.28	345.43	86.36	1871.06	7.30%
LOGGIA	3655.77	877.96	115.14	4648.88	18.15%
1ST FLOOR	7038.08	2245.28	806.00	10089.36	39.38%
2ND FLOOR	2302.85	921.14	172.71	3396.70	13.26%
3RD FLOOR	1755.92	834.78	374.21	2964.92	11.57%
4TH FLOOR	1727.14	863.57	57.57	2648.28	10.34%
TOTAL	17919.04	6088.16	1611.99	25619.19	100.00%

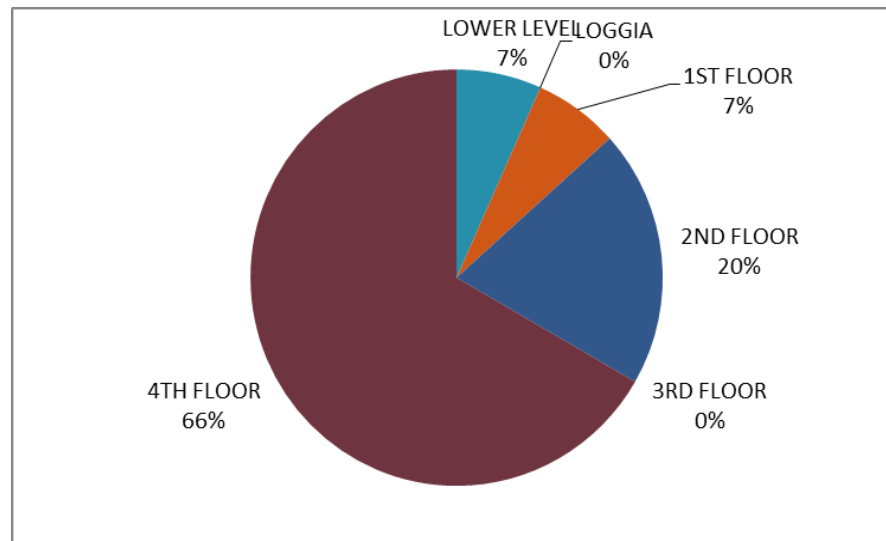
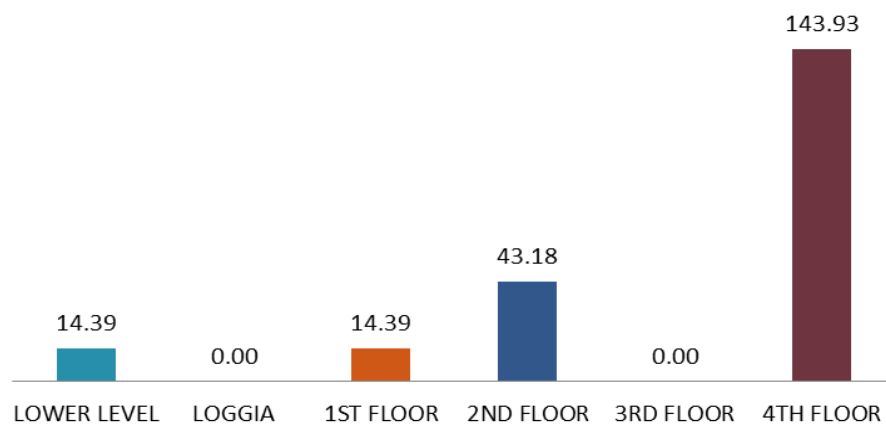


**Organic materials represent 56.58% of the waste audit sample.**  
**The first floor generated the greatest amount of organic materials, at 40.00%.**  
**Organic materials were also the highest generator of waste found in the audit sample.**

### Summary of Annual 'Other' Material Findings (KG/YR)

	Textiles	Electronics	Latex	Instant Coffee Packs/Pods	Total	Percentage of Total
LOWER LEVEL	0.00	0.00	0.00	14.39	14.39	6.67%
LOGGIA	0.00	0.00	0.00	0.00	0.00	0.00%
1ST FLOOR	0.00	0.00	14.39	0.00	14.39	6.67%
2ND FLOOR	0.00	0.00	28.79	14.39	43.18	20.00%
3RD FLOOR	0.00	0.00	0.00	0.00	0.00	0.00%
4TH FLOOR	143.93	0.00	0.00	0.00	143.93	66.67%
TOTAL	143.93	0.00	43.18	28.79	215.89	100.00%

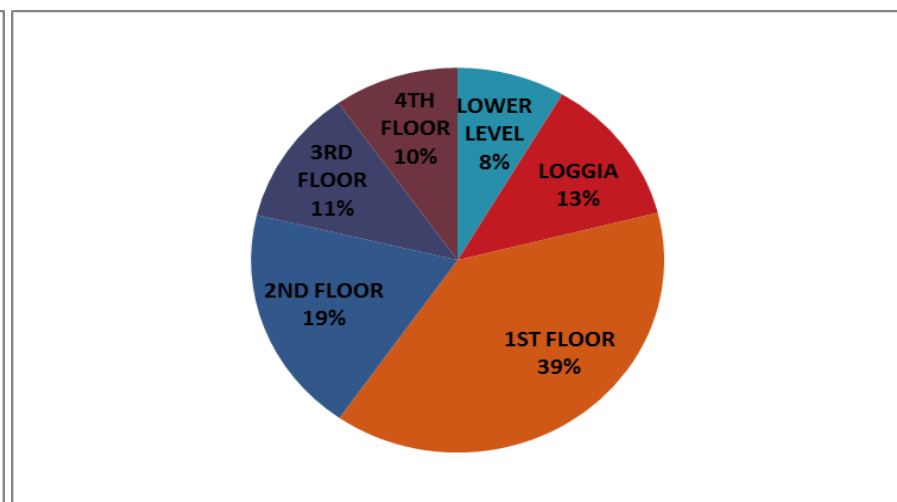
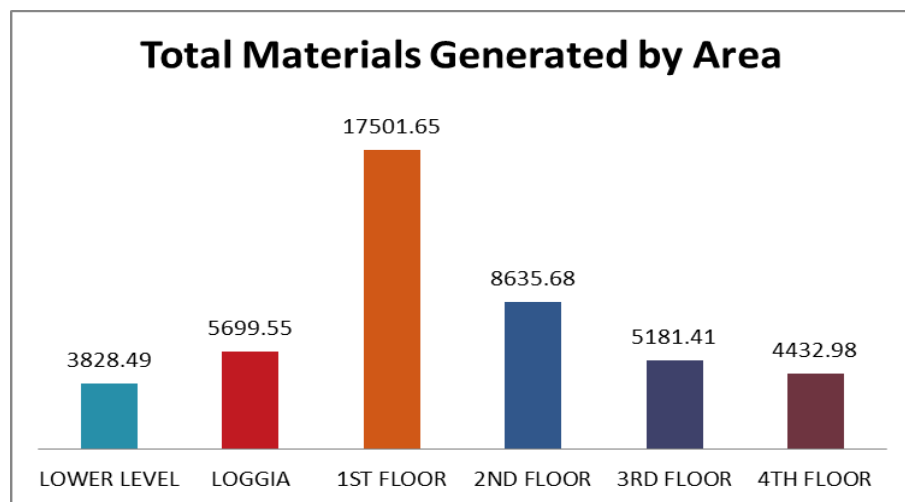
### 'Other' Materials Generated by Area



'Other' materials represent 0.48% of the waste audit sample.

### Summary of Annual Total Material Findings (KG/YR)

	Paper	Plastics	Metals	Glass	HSW	Organics	Other Materials	Total	Percentage of Total
LOWER LEVEL	1324.14	561.32	57.57	0.00	0.00	1871.06	14.39	3828.49	8.46%
LOGGIA	446.18	532.53	71.96	0.00	0.00	4648.88	0.00	5699.55	12.59%
1ST FLOOR	2633.88	4375.41	331.03	57.57	0.00	10089.36	14.39	17501.65	38.65%
2ND FLOOR	2504.35	2533.13	115.14	43.18	0.00	3396.70	43.18	8635.68	19.07%
3RD FLOOR	1065.07	1036.28	57.57	57.57	0.00	2964.92	0.00	5181.41	11.44%
4TH FLOOR	518.14	791.60	331.03	0.00	0.00	2648.28	143.93	4432.98	9.79%
TOTAL	8491.75	9830.28	964.32	158.32	0.00	25619.19	215.89	45279.76	100.00%



**Based on the waste audit results, the first floor is the highest generator of waste out of the areas audited at the Stauffer Library.**



## PHOTOS FROM WASTE AUDIT

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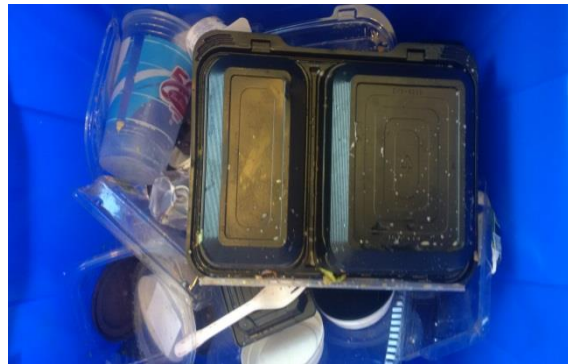
**PAPER – BOXBOARD**  
(RECYCLABLE)



**PAPER – KRAFT PAPER**  
(RECYCLABLE)



**PLASTIC – LDPE #4**  
(RECYCLABLE)



**PLASTIC – PS #6 CLEAR/HARD**  
(RECYCLABLE)



**PAPER – COFFEE CUPS**  
(RECYCLABLE)



**PAPER – MIXED PAPER FIBRES**  
(RECYCLABLE)



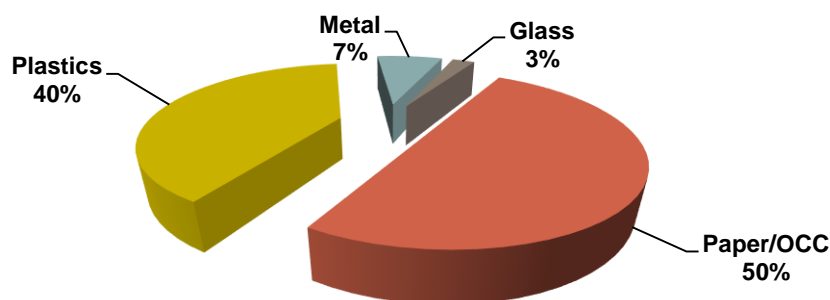
## ANNUAL DIVERSION RATE AND PERCENTAGE

Based on industry standards, service information and monthly data reporting, approximately 13,920.00 kg or 13.92 t of materials are removed and recycled from the Stauffer Library on an annual basis.

### Material Diverted from Landfill:

Material Destination	Weight Generated (kg)	Weight Generated (t)
Landfill	45,279.76	45.28
Recycled	13,920.00	13.92
<b>Total Material Generated</b>	<b>59,199.76</b>	<b>59.20</b>

### Diverted Recyclables Percentages



### Current Annual Diversion Rate Percentage

The annual waste diversion percentage rate is calculated as follows:

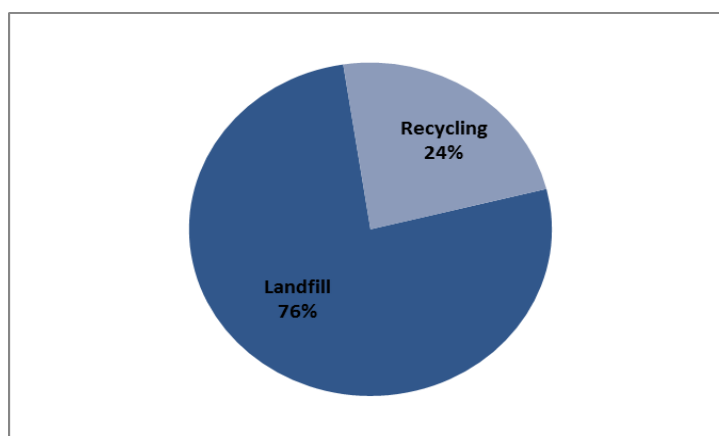
**(waste + recycling ÷ generated; recycling ÷ generated x 100 = diversion percentage)**

### Diversion Rate

**24.00%**

Therefore the current annual diversion rate percentage when all initiatives are accounted for is estimated to be 24.00%.

### Annual Diversion Rate Percentage 2014





## RECOMMENDATIONS

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In order to further improve the effectiveness of the recycling program at the Stauffer Library, there are several initiatives to take into consideration. To divert as much material from landfill as possible it would be beneficial for the facility to direct all recycling efforts towards further source separating recyclable materials. Organics represented the most significant amount of the overall waste-to-landfill sample generated over the audit sample collection period, followed by plastic and paper materials.

### **IMPLEMENT ORGANIC RECYCLING PROGRAM**

56.58% of the audit sample was found to be organic waste. As organics are the heaviest contributor to overall disposal figures, diverting as much organic material from the waste stream as possible will greatly increase the diversion rate and reduce the amount of waste sent to landfill annually. Materials to be incorporated in the organics recycling program include food waste, soiled paper towel and tissue, and garden and yard waste (plants, soils, etc.).

### **IMPROVE PLASTIC MATERIALS RECYCLING**

21.71% of the audit sample consisted of plastic materials. Recyclable plastics such PETE #1 at 15.52%, plastic water bottles and clamshells, and PS #6 (21.96%) yogurt cups and coffee lids, were the highest subcategories of recyclable plastics found in the waste audit sample.

Non-recyclable plastics consisted mainly of non-recyclable film (38.36%), such as garbage bags, Ziploc bags and candy/chip bags wrappers, along with rigid plastics (11.42%), such as unlabeled plastics, cutlery and straws. Since these materials are not currently recyclable, encourage purchasing and food services to consider switching to recyclable or biodegradable containers and increase awareness about the impacts behind disposing plastics in landfills.

### **IMPROVE PAPER RECYCLING**

From the audit sample, paper fibres contributed to 18.75% of the overall waste sample. Newspaper (12.37%) and coffee cups (48.47%) represented the highest subcategories of recyclable paper material found in the audit sample. Providing proper recycling receptacles at point of generation locations with adequate signage will help to eliminate these issues. Paper coffee cups should continue to be recycled with plastic, metal, and glass food and beverage containers.

Proper education and training on recycling practices for the Physical Plant Services staff, faculty, and students will assist with increasing the overall diversion rate for the building.



## SIGNAGE AND EDUCATION

### EMPLOYEE/ STUDENT EDUCATION:

Educational information should be displayed on an 'Environmental Board' and frequently updated to encourage and engage employee and student participation. These boards can be displayed in common areas to engage employees and students to encourage them to participate in the recycling programs available. While education and training on waste reduction should be ongoing, formal education should take place periodically (for example, 1-2 times per year). It would be beneficial to do this through training presentations for the Physical Plant Services staff, as well as for students and employees.

### VISITOR EDUCATION:

Clear, visible guidelines and signage are very important to the success of the recycling program. All areas of the building should be equipped with appropriate signage to clearly indicate to visitors which materials are accepted in the receptacles, and to remind them of the importance of their involvement in the recycling program. Recycling guidelines should be posted wherever receptacles and collection containers are stationed.



## ***MONITORING AND EVALUATION***

One of the keys to a successful recycling program is gathering quantifiable results to follow the progress of the program over the course of time. Ensure that a waste audit is completed once every twelve months and keep track of the data results year to year to compare disposal and recycling rates. Continue to receive monthly diversion reports and display or send out results in a newsletter to reach all employees and pinpoint where improvements can be made.

Using the sustainability team to monitor waste diversion and waste management activities can help to engage employees and students and ensure that waste diversion is being monitored at the same time. It is important to have members of different campus departments share the responsibility of reviewing waste diversion, overseeing program development, and continuously monitoring the efficiency of the recycling programs in place to help ensure input is received from all areas of the facility. The team may also develop new goals and strategies for the facility and provide an outlet for environmental awareness.

Clear bags should continue to be used on all receptacles, for both recycling and waste. This helps when cleaning staff are identifying bags for recycling and analyzing levels of contamination within the streams. It is also suggested that loading docks be monitored so that the number of receptacles and pick up schedules can be adjusted as necessary. Maintain up-to-date records of waste diversion initiatives (e.g. diversion charts, educational or promotional efforts etc.) to see if changes need to be made to the recycling program.

## ***CONTINUAL PROGRAM REVIEW***

The success of the existing recycling program should be continually reviewed by physical plant services and the waste diversion team in order to establish goals and monitor improvement over time. This should include but not be limited to:

- The adequacy and accessibility of available bins.
- The disposal methods used by custodial staff, students, and employees, and the location of signage or labels on bins.
- The assessment of how materials are being sorted and the potential for new materials to be recycled as the hauler systems and industry changes.

As always, please post and make available the MOE work plan for all employees and sign documents in all applicable areas (located on pages 24 and 30).



## CONCLUSIONS

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In order to address and monitor the effectiveness of the recycling program in place at the Stauffer Library, consider the following suggestions to improve the existing program and efforts of employees, students, and visitors:

- Ensure that adequate signage is placed on or above all recycling receptacles and that the signage remains consistent throughout the building.
- Education throughout the building can be promoted through promotional and awareness events (especially during Earth Month in April and Waste Reduction Week in October).
- Provide employees with information on recycling procedures and services.

The success of these initiatives depends on the involvement of all parties, from management, to cleaning and maintenance staff, as well as employees, students, and visitors to the building. The more involved all parties are in the waste reduction goals of Queen's University, the greater the success of the program.



## APPENDIX I – WASTE AUDIT DATA

CUSTOMER NAME:		Queen's University- Stauffer Library		WASTE AUDIT DATA			
BLDG NAME/ADDRESS:		101 Union St., Kingston, ON					
DATE OF REPORT:		9- Oct- 14					
				(KGS)	(KGS)	(KGS)	(KGS)
Paper		%	%	Annual Waste	Monthly	Weekly	Daily
Newspaper	ONP, inserts, phone book		12.37%	1,050.67	87.56	23.69	5.47
Magazines	OMG		2.54%	215.89	17.99	4.87	1.12
Cardboard	OCC		0.00%	-	-	-	-
Boxboard	OBB		7.29%	618.89	51.57	13.96	3.22
Mixed Papers	Junk mail, fine papers, shredding		6.78%	575.71	47.98	12.98	3.00
Molded Pulp	Egg cartons, cup holder trays		1.53%	129.54	10.79	2.92	0.67
Kraft Paper	Fast food bags, paper bags		2.88%	244.68	20.39	5.52	1.27
Spiral Wound	Frozen juice, Pringles		0.00%	-	-	-	-
Other Paper	Multi-layered, waxed cups		15.93%	1,352.92	112.74	30.51	7.05
Coffee Cups	Coffee Cups		48.47%	4,116.34	343.03	92.83	21.44
Gable Top Cartons	Milk & Juice		1.86%	158.32	13.19	3.57	0.82
Aseptic Containers	Juice boxes		0.34%	28.79	2.40	0.65	0.15
Total Paper		18.75%	100.00%	8,491.75	707.65	191.51	44.23
Plastics							
# 1 PETE Soft Drinks	Bottles, clamshells		15.52%	1,525.64	127.14	34.41	7.95
# 2 HDPE	Detergent/oil bottles		1.32%	129.54	10.79	2.92	0.67
# 3 PVC			0.00%	-	-	-	-
# 4 LDPE Recyclable Film	Grocery bags, shrink wrap		2.05%	201.50	16.79	4.54	1.05
# 5 PP	Yogurt tubs, margarine containers		4.83%	474.96	39.58	10.71	2.47
# 6 PS (Styrofoam)	Take-out cups and containers		4.54%	446.18	37.18	10.06	2.32
# 6 PS (Clear/Hard)	Coffee cup lids, yogurt cups		21.96%	2,158.92	179.91	48.69	11.24
# 7 Other	Mixed Plastics		0.00%	-	-	-	-
Non- Recyclable Film	Garbage bags, chip bags, shrink		38.36%	3,770.91	314.24	85.04	19.64
Rigid Plastics	Cutlery, creamers, eye wear		11.42%	1,122.64	93.55	25.32	5.85
Plastic Strapping	Used for Shipping & Receiving		0.00%	-	-	-	-
Total Plastics		21.71%	100.00%	9,830.28	819.19	221.69	51.20
Metals							
Aluminum Cans	Food & beverage		59.70%	575.71	47.98	12.98	3.00
Aluminum Foil	Foil and trays		7.46%	71.96	6.00	1.62	0.37
Steel	Food cans		31.34%	302.25	25.19	6.82	1.57
Aerosol Cans	Compressed air		1.49%	14.39	1.20	0.32	0.07
Total Metals		2.13%	100.00%	964.32	80.36	21.75	5.02
Glass							
LCBO Clear	Clear glass alcoholic beverages		0.00%	-	-	-	-
LCBO Colour	Coloured glass alcoholic beverages		0.00%	-	-	-	-
Clear	Food & beverage containers		63.64%	100.75	8.40	2.27	0.52
Coloured	Food & beverage containers		36.36%	57.57	4.80	1.30	0.30
Other Glass	Broken window glass, ceramics		0.00%	-	-	-	-
Total Glass		0.35%	100.00%	158.32	13.19	3.57	0.82
HSW (Household Special Waste)							
Batteries	All types		0.00%	-	-	-	-
Sanitizer	Hand sanitizer		0.00%	-	-	-	-
Lightbulbs	Fluorescent light tubes		0.00%	-	-	-	-
Total HSW		0.00%	0.00%	-	-	-	-
Organics							
Food Waste	Food scraps		69.94%	17,919.04	1,493.25	404.11	93.33
Tissue / Toweling	Tissue, wet/soiled napkins		23.76%	6,088.16	507.35	137.30	31.71
Yard Waste	Plants, flowers		0.00%	-	-	-	-
Compostable Ware	Compostable cups, cutlery		6.29%	1,611.99	134.33	36.35	8.40
Total Organics		56.58%	100.00%	25,619.19	2,134.93	577.77	133.43
Other Materials							
Textiles	Linen		66.67%	143.93	11.99	3.25	0.75
Electronics	Wires, cell phones		0.00%	-	-	-	-
Latex	Gloves		20.00%	43.18	3.60	0.97	0.22
Instant Coffee Packs/Pods	Individual serve coffee		13.33%	28.79	2.40	0.65	0.15
Total Other		0.48%	100.00%	215.89	17.99	4.87	1.12
Total Annual Waste				100.00%	45,279.76		
Total Annual Divertable Materials		84.55%		38,284.86			
Total Annual Non- Divertable Materials		15.45%		6,994.90			
*The highlighted items are not acceptable items for recycling							



## APPENDIX II - WASTE AUDIT SUMMARY, REPORT OF A WASTE AUDIT

### 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 retained on file for at least five years after it is prepared, and be made available to the ministry upon request.*

#### GENERAL INFORMATION

<b>Name of Owner and/or Operator of Entity(ies) and Company Name:</b> Queen's University- Joseph S. Stauffer Library			
<b>Name of Contact Person:</b> Llynwen Osborne		<b>Telephone #:</b> (613) 533-3396	<b>Email address:</b> lrso@queensu.ca
<b>Street Address(es) of Entity(ies):</b> 101 Union Street			
<b>Municipality:</b> Kington, Ontario			
<b>Type of Entity (check one)</b>			
Retail Shopping Establishments	<input type="checkbox"/>	Hotels and Motels	<input type="checkbox"/>
Retail Shopping Complexes	<input type="checkbox"/>	Hospitals	<input type="checkbox"/>
Office Buildings	<input type="checkbox"/>	Educational Institutions	<input checked="" type="checkbox"/>
Restaurants	<input type="checkbox"/>	Large Manufacturing Establishments	<input type="checkbox"/>
Entertainment Venue	<input type="checkbox"/>		<input type="checkbox"/>

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

#### DESCRIPTION OF ENTITY

<b>Provide a brief overview of the entity(ties):</b>
Queen's University is a post-secondary education institution located in Kingston, Ontario. The campus is located centrally in down town Kingston. The Stauffer Library is located on Union Street and is utilized by students, faculty, and the general public, and houses offices, classrooms and a food kiosk.

## HOW WASTE IS PRODUCED AND DECISIONS AFFECTING THE PRODUCTION OF WASTE

For each category of waste that are 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?
<i>Example: Disposable Food Packaging</i>	<i>Generated by customers eating inside restaurant. Food packaging is used for health reasons. Reusable mugs for customers consuming coffee/tea inside restaurant are being reviewed.</i>
Newspaper	Generated by students and employees. Material is deposited into designated container for recycling.
Magazines	Generated by students and employees. Material is deposited into designated container for recycling.
Cardboard	Generated by students and employees. Material is deposited into designated container for recycling.
Boxboard	Generated by students and employees. Material is deposited into designated container for recycling.
Mixed Papers	Generated by students and employees. Material is deposited into designated container for recycling.
Molded Pulp	Generated by students and employees. Material is deposited into designated container for recycling.
Kraft Paper	Generated by students and employees. Material is deposited into designated container for recycling.
Spiral Wound	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Other Paper	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Coffee Cups	Generated by students and employees. Material is deposited into designated container for recycling.
Gable Top Cartons	Generated by students and employees. Material is deposited into designated container for recycling.
Aseptic Containers	Generated by students and employees. Material is deposited into designated container for recycling.
PETE #1	Generated by students and employees. Material is deposited into designated container for recycling.
HDPE #2	Generated by students and employees. Material is deposited into designated container for recycling.
PVC #3	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
LDPE #4	Generated by students and employees. Material is deposited into designated container for recycling.
PP #5	Generated by students and employees. Material is deposited into designated container for recycling.
PS #6 (Styrofoam) - Take-out Containers	Generated by students and employees. Material is deposited into designated container for recycling.
PS #6 (Styrofoam) - Packaging	Generated by students and employees. Material is deposited into designated container for recycling.
PS #6 (Clear/ Hard)	Generated by students and employees. Material is deposited into designated container for recycling.
Other #7	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Non-Recyclable Film	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Rigid Plastics	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Plastic Strapping	Generated by students and employees. Material is deposited into designated container for recycling.
Aluminum Cans	Generated by students and employees. Material is deposited into designated container for recycling.
Aluminum Foil	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Steel Cans	Generated by students and employees. Material is deposited into designated container for recycling.
Glass Food and Beverage Containers	Generated by students and employees. Material is deposited into designated container for recycling.
Other Glass	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
HSW - (i.e. Batteries)	Generated by students and employees. Material is deposited into designated container for recycling.
Food Waste	Generated by students and employees. Material is deposited into designated container for waste.
Tissue/ Toweling	Generated by students and employees. Material is deposited into designated container for waste.
Compostable Ware	Generated by students and employees. Material is deposited into designated container for waste.
Other - Wood/C&D	Generated by students and employees. Material is deposited into designated container for recycling.
Other - Textiles	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Other - Electronic Waste	Generated by students and employees. Material is deposited into designated container for recycling.
Other - Latex Gloves	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>
Other - Instant Coffee Pods	<i>Generated by students and employees. Material is deposited into designated container for waste.</i>

## 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
<b>Example: Beverage cans</b>	<b>Staff/clients may place in garbage cans (labelling will be in place to discourage this)</b>	<b>Staff/clients place cans in recycling receptacles. Collection staff later collect cans. Those in garbage are disposed; those in recycling receptacles are recycled.</b>
Newspaper		Participants place in collection containers provided, items captured and recycled.
Magazines		Participants place in collection containers provided, items captured and recycled.
Cardboard		Participants place in collection containers provided, items captured and recycled.
Boxboard		Participants place in collection containers provided, items captured and recycled.
Mixed Papers		Participants place in collection containers provided, items captured and recycled.
Molded Pulp		Participants place in collection containers provided, items captured and recycled.
Kraft Paper		Participants place in collection containers provided, items captured and recycled.
Spiral Wound	Participants place in waste containers.	
Other Paper	Participants place in waste containers.	
Coffee Cups		Participants place in collection containers provided, items captured and recycled.
Gable Top Cartons		Participants place in collection containers provided, items captured and recycled.
Aseptic Containers		Participants place in collection containers provided, items captured and recycled.
PETE #1		Participants place in collection containers provided, items captured and recycled.
HDPE #2		Participants place in collection containers provided, items captured and recycled.
PVC #3	Participants place in waste containers.	
LDPE #4		Participants place in collection containers provided, items captured and recycled.
PP #5		Participants place in collection containers provided, items captured and recycled.
PS #6 (Styrofoam) - Take-out Containers		Participants place in collection containers provided, items captured and recycled.
PS #6 (Styrofoam) - Packaging		Participants place in collection containers provided, items captured and recycled.
PS #6 (Clear/ Hard)		Participants place in collection containers provided, items captured and recycled.
Other #7	Participants place in waste containers.	
Non-Recyclable Film	Participants place in waste containers.	
Rigid Plastics	Participants place in waste containers.	
Plastic Strapping		Participants place in collection containers provided, items captured and recycled.
Aluminum Cans		Participants place in collection containers provided, items captured and recycled.
Aluminum Foil	Participants place in waste containers.	
Steel Cans		Participants place in collection containers provided, items captured and recycled.
Glass Food and Beverage Containers		Participants place in collection containers provided, items captured and recycled.
Other Glass	Participants place in waste containers.	
HSW - (i.e. Batteries)		Participants place in collection containers provided, items captured and recycled.
Food Waste	Participants place in waste containers.	
Tissue/ Toweling	Participants place in waste containers.	
Compostable Ware	Participants place in waste containers.	
Other - Wood/C&D		Participants place in collection containers provided, items captured and recycled.
Other - Textiles	Participants place in waste containers.	
Other - Electronic Waste		Participants place in collection containers provided, items captured and recycled.
Other - Latex Gloves	Participants place in waste containers.	
Other - Instant Coffee Pods	Participants place in waste containers.	

## ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY

Queen's University- Stauffer Library 101 Union St., Kingston, ON									
Categories of Waste	Generated			Recycled			Disposed		
	"A" Base Year (2013)	"B" Current Year (2014)	"C" Change (B-A)	"A" Base Year (2013)	"B" Current Year (2014)	"C" Change (B-A)	"A" Base Year (2013)	"B" Current Year (2014)	"C" Change (B-A)
Newspaper	-	1.75	1.75		0.70	0.70		1.05	1.05
Magazines	-	0.57	0.57		0.35	0.35		0.22	0.22
Cardboard	-	1.39	1.39		1.39	1.39		-	-
Boxboard	-	1.66	1.66		1.04	1.04		0.62	0.62
Mixed Papers	-	3.02	3.02		2.44	2.44		0.58	0.58
Molded Pulp	-	0.27	0.27		0.14	0.14		0.13	0.13
Kraft Paper	-	0.66	0.66		0.42	0.42		0.24	0.24
Spiral Wound	-	-	-		-	-		-	-
Other Paper	-	1.35	1.35		-	-		1.35	1.35
Coffee Cups	-	4.40	4.40		0.28	0.28		4.12	4.12
Gable Top Cartons	-	0.30	0.30		0.14	0.14		0.16	0.16
Aseptic Containers	-	0.10	0.10		0.07	0.07		0.03	0.03
PETE #1	-	3.48	3.48		1.95	1.95		1.53	1.53
HDPE #2	-	0.74	0.74		0.61	0.61		0.13	0.13
PVC #3	-	-	-		-	-		-	-
LDPE #4	-	0.76	0.76		0.56	0.56		0.20	0.20
PP #5	-	1.47	1.47		1.00	1.00		0.47	0.47
PS #6 (Styrofoam) - Take-out Containers	-	0.67	0.67		0.22	0.22		0.45	0.45
PS #6 (Clear/ Hard)	-	3.39	3.39		1.23	1.23		2.16	2.16
Other #7	-	-	-		-	-		-	-
Non-Recyclable Film	-	3.77	3.77		-	-		3.77	3.77
Rigid Plastics	-	1.12	1.12		-	-		1.12	1.12
Plastic Strapping	-	-	-		-	-		-	-
Aluminum Cans	-	1.41	1.41		0.83	0.83		0.58	0.58
Aluminum Foil	-	0.07	0.07		-	-		0.07	0.07
Steel Cans	-	0.51	0.51		0.21	0.21		0.30	0.30
Aerosol Cans	-	0.01	0.01		-	-		0.01	0.01
Glass	-	0.50	0.50		0.34	0.34		0.16	0.16
Other Glass	-	-	-		-	-		-	-
HSW - (i.e. Batteries)	-	-	-		-	-		-	-
Food Waste	-	17.92	17.92		-	-		17.92	17.92
Tissue/ Toweling	-	6.09	6.09		-	-		6.09	6.09
Compostable Ware	-	1.61	-		-	-		1.61	1.61
Other - Wood/C&D	-	-	-		-	-		-	-
Other - Textiles	-	0.14	-		-	-		0.14	0.14
Other - Electronic Waste	-	-	-		-	-		-	-
Other - Latex Gloves	-	0.04	0.04		-	-		0.04	0.04
Other - Instant Coffee Pods	-	0.03	0.03		-	-		0.03	0.03
<b>TOTAL</b>	<b>-</b>	<b>59.20</b>	<b>59.20</b>	<b>-</b>	<b>13.92</b>	<b>13.92</b>	<b>-</b>	<b>45.28</b>	<b>45.28</b>
<b>Percent Change (C÷A x 100)</b>			0.00%			0.00%			0.00%



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

---

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.

*Not at this time.*

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.

*Not at this time.*

\* 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

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



## APPENDIX III - REPORT OF WASTE REDUCTION WORK PLAN- GENERAL INFORMATION

<b>Name of Owner and/or Operator of Entity(ies) and Company Name:</b> Queen's University- Joseph S. Stauffer Library			
<b>Name of Contact Person:</b> Llynwen Osborne		<b>Telephone #:</b> (613) 533-3396	<b>Email address:</b> lrso@queensu.ca
<b>Street Address(es) of Entity(ies):</b> 101 Union Street			
<b>Municipality:</b> Kingston, Ontario			
<b>Type of Entity (check one)</b>			
Retail Shopping Establishments	<input type="checkbox"/>	Hotels and Motels	<input type="checkbox"/>
Retail Shopping Complexes	<input type="checkbox"/>	Hospitals	<input type="checkbox"/>
Office Buildings	<input type="checkbox"/>	Educational Institutions	<input checked="" type="checkbox"/>
Restaurants	<input type="checkbox"/>	Large Manufacturing Establishments	<input type="checkbox"/>
Entertainment Venue	<input type="checkbox"/>		<input type="checkbox"/>

### DESCRIPTION OF ENTITY

<p>Provide a brief overview of the entity(ties):</p> <p>Queen's University is a post-secondary education institution located in Kingston, Ontario. The campus is located centrally in down town Kingston.</p> <p>The Stauffer Library is located on Union Street and is utilized by students, faculty, and the general public, and houses offices, classrooms and a food kiosk.</p>
---

## PLANS TO REDUCE, REUSE AND RECYCLE

Waste Category	Source Separation and 3Rs Program
Newspaper	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Magazines	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Cardboard	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Boxboard	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Mixed Papers	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Molded Pulp	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Kraft Paper	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Spiral Wound	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Other Paper	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Coffee Cups	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Gable Top Cartons	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Aseptic Containers	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PETE #1	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
HDPE #2	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PVC #3	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
LDPE #4	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PP #5	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PS #6 (Styrofoam) - Take-out Containers	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PS #6 (Styrofoam) - Packaging	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
PS #6 (Clear/ Hard)	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Other #7	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Non-Recyclable Film	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Rigid Plastics	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Plastic Strapping	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Aluminum Cans	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Aluminum Foil	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Steel Cans	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Glass Food and Beverage Containers	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Other Glass	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
HSW - (i.e. Batteries)	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Food Waste	No program currently in place. Consider implementing an organics collection and recycling program to divert material.
Tissue/ Toweling	No program currently in place. Consider implementing an organics collection and recycling program to divert material.
Compostable Ware	No program currently in place. Consider implementing an organics collection and recycling program to divert material.
Other - Wood/C&D	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Other - Textiles	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Other - Electronic Waste	Program already in place. Enhance employee education; ensure all staff members and employees understand current recycling programs and initiatives.
Other - Latex Gloves	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>
Other - Instant Coffee Pods	<i>Material is not recyclable. Ensure employees understand current recycling programs and initiatives.</i>

## **RESPONSIBILITY FOR IMPLEMENTING THE WASTE REDUCTION WORK PLAN**

---

Identify who is responsible for implementing the Waste Reduction Work Plan at your entity(ies). If more than one person is responsible for implementation, identify each person who is responsible and indicate the part of the Waste Reduction Work Plan that each person is responsible for implementing.		
<b>Name of Person</b>	<b>Responsibility</b>	<b>Telephone #</b>
Llynwen Osborne	Waste Diversion Coordinator, Physical Plant Services	(613) 533-3396

## **COMMUNICATION TO ALL EMPLOYEES, VISITORS, ETC.**

---

Explain how the Waste Reduction Work Plan will be communicated to employees, customers, and visitors:
<p>Written communication will be distributed or posted for all parties to read, detailing the audit results and the plan to increase and continue with recycling initiatives for all functional areas of the facility. The communication will speak to the Work Plan action items and objectives, and will provide the vehicle necessary to continue towards greater diversion success.</p> <p>Follow up communications will be provided to inform employees, tenants, students, faculty and physical plant services staff of program success, challenges and/or improvements required on a continual basis.</p>

## TIMETABLE FOR IMPLEMENTING WASTE REDUCTION WORK PLAN

Source Separation and 3Rs Program	Schedule for Completion
<i>Example: Fine Paper 3Rs Program</i>	<i>"Deskside receptacles and centralized containers to be purchased in March. New collection contract for recycling to be arranged for April Kick off for program and instructions to staff regarding 3Rs program to occur in April" <b>OR</b> "3Rs Program currently in place."</i>
Newspaper	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Magazines	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Cardboard	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Boxboard	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Mixed Papers	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Molded Pulp	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Kraft Paper	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Spiral Wound	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Other Paper	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Coffee Cups	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Gable Top Cartons	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Aseptic Containers	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PETE #1	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
HDPE #2	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PVC #3	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
LDPE #4	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PP #5	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PS #6 (Styrofoam) - Take-out Containers	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PS #6 (Styrofoam) - Packaging	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
PS #6 (Clear/ Hard)	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Other #7	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Non-Recyclable Film	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Rigid Plastics	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Plastic Strapping	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Aluminum Cans	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Aluminum Foil	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Steel Cans	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Glass Food and Beverage Containers	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Other Glass	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
HSW - (i.e. Batteries)	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Food Waste	No program currently in place. Consider implementing an organics collection and recycling program to divert material by late 2015.
Tissue/ Toweling	No program currently in place. Consider implementing an organics collection and recycling program to divert material by late 2015.
Compostable Ware	No program currently in place. Consider implementing an organics collection and recycling program to divert material by late 2015.
Other - Wood/C&D	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Other - Textiles	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Other - Electronic Waste	Program in place, ensure all employees are educated on available programs for diversion; increase signage for appropriate disposal by early 2015.
Other - Latex Gloves	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>
Other - Instant Coffee Pods	<i>Material is not recyclable. Ensure employees understand what is accepted in the recycling program by early 2015.</i>

**ESTIMATED WASTE PRODUCED BY MATERIAL TYPE AND THE PROJECTED AMOUNT TO BE DIVERTED BY THERs 3Rs**

Material Categories (as stated in Part III)	Estimated Annual Waste Produced (tonnes)	Name of Proposed 3Rs Program (as stated in Part III)	Projections to Reduce, Reuse or Recycle Waste (tonnes)			Estimated Annual Amount to be Diverted (%)
			Reduce	Reuse	Recycle	
<i>Example: Fine Paper</i>	<i>1.8 t</i>	<i>Fine Paper 3Rs Program</i>	<i>200 t</i>	<i>100 t</i>	<i>1.2 t</i>	<i>95</i>
Newspaper	1.75	Mixed Paper Recycling			0.70	<b>40</b>
Magazines	0.57	Mixed Paper Recycling			0.23	<b>40</b>
Cardboard	1.39	Mixed Paper Recycling			0.56	<b>40</b>
Boxboard	1.66	Mixed Paper Recycling			0.66	<b>40</b>
Mixed Papers	3.02	Mixed Paper Recycling			1.21	<b>40</b>
Molded Pulp	0.27	Mixed Paper Recycling			0.11	<b>40</b>
Kraft Paper	0.66	Mixed Paper Recycling			0.26	<b>40</b>
Spiral Wound	0.00	Waste	0.00			<b>N/A</b>
Other Paper	1.35	Waste	0.14			<b>10</b>
Coffee Cups	4.40	Mixed Paper Recycling			1.76	<b>40</b>
Gable Top Cartons	0.30	Mixed Paper Recycling			0.12	<b>40</b>
Aseptic Containers	0.10	Mixed Paper Recycling			0.04	<b>40</b>
PETE #1	3.48	Co-Mingled Recycling			1.40	<b>40</b>
HDPE #2	0.74	Co-Mingled Recycling			0.30	<b>40</b>
PVC #3	0.00	Waste	0.00			<b>N/A</b>
LDPE #4	0.76	Co-Mingled Recycling			0.30	<b>40</b>
PP #5	1.47	Co-Mingled Recycling			0.58	<b>40</b>
PS #6 (Styrofoam) - Take-out Containers	0.67	Co-Mingled Recycling			0.27	<b>40</b>
PS #6 (Styrofoam) - Packaging	0.00	Co-Mingled Recycling			0.00	<b>N/A</b>
PS #6 (Clear/ Hard)	3.39	Co-Mingled Recycling			1.36	<b>40</b>
Other #7	0.00	Waste	0.00			<b>N/A</b>
Non-Recyclable Film	3.77	Waste	0.37			<b>10</b>
Rigid Plastics	1.12	Waste	0.11			<b>10</b>
Plastic Strapping	0.00	Co-Mingled Recycling			0.00	<b>N/A</b>
Aluminum Cans	1.41	Co-Mingled Recycling			0.56	<b>40</b>
Aluminum Foil	0.07	Waste	0.01			<b>10</b>
Steel Cans	0.51	Co-Mingled Recycling			0.20	<b>40</b>
Glass, Food and Beverage	0.50	Co-Mingled Recycling			0.20	<b>40</b>
Other Glass	0.00	Waste	0.00			<b>N/A</b>
HSW - (i.e. Batteries)	0.00	Alternative Diversion Program			0.00	<b>N/A</b>
Food Waste	17.92	Waste	1.80			<b>10</b>
Tissue/ Toweling	6.09	Waste	0.61			<b>10</b>
Compostable Ware	1.61	Waste	0.16			<b>10</b>
Other - Wood/C&D	0.00	Alternative Diversion Program			0.00	<b>N/A</b>
Other - Textiles	0.14	Donation/ Waste	0.01			<b>10</b>
Other - Electronic Waste	0.00	Alternative Diversion Program			0.00	<b>N/A</b>
Other - Latex Gloves	0.04	Waste	0.00			<b>10</b>
Other - Instant Coffee Pods	0.03	Waste	0.00			<b>10</b>

**I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.**

<b>Signature of authorized official:</b>	<b>Title:</b>	<b>Date:</b>