

# Queen's University

## Waste & Recycling Report

### Date: 2010-2011

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#### Introduction

The principles of waste reduction and diversion continue to be a priority to Queen's which is demonstrated through programming aimed at reducing, reusing and recycling as much waste as possible. This year, Queen's maintained its diversion rate and implemented new programs, including Better World Books and the Freecycle@work online asset exchange program.

#### 2011 Waste Audit

The University conducted a waste audit of the campus solid non-hazardous waste in January of this year. According to the results of this audit, it is estimated that the university is generating approximately 2,838 metric tonnes (MT) of solid, non-hazardous waste annually and recycling approximately 966 (MT) of the annual total. Based on these measurements, the current diversion rate for the university is 34%. These results, however, do not include other university waste diversion programs, such as furniture reuse (11 MT), electronic waste recycling (30 MT), leaf and yard waste (32 MT), which increases the campus waste diversion rate to approximately 43%. More information about the audit can be found on the Sustainability website: <http://www.queensu.ca/sustainability/reports/wasteauditsummary2011.pdf>.

#### Waste Diversion Programs

##### Mixed Recycling

The university's waste management program continues to participate in the two core recycling streams: cans, glass and plastic and mixed fibre (paper & cardboard). Much of the programming this year focussed on ways to encourage campus user groups to sort recyclables into the appropriate containers provided in all buildings. A series of 3 posters were launched during National Waste Reduction Week in October 2011 and posted around campus to encourage the campus community to think about their waste and recycling choices. The university also participated for the first time in the international college and university waste diversion awareness campaign, [Recyclemania](#). During this competition, Queen's joins hundreds of other schools in Canada, United States, Mexico, the United Kingdom and Qatar in recording their waste and recycling data for an eight-week competition. The data collected is then ranked to show which school collected the most recyclables, generated the least amount of trash per capita, and has the highest recycling rate. According to the annual waste audit conducted in January of this year, the university is successfully recycling approximately 300 MT of cans, glass and plastic and 600 MT of paper and cardboard.

##### E-waste

Queen's has had an electronic recycling program in place since 2005. Staff and faculty can submit an [on-line request](#) to Waste Services to pick up their unwanted electronic items. Items are collected on a weekly basis and sent for recycling to the contracted electronics recycler, Sims Recycling Solutions. In 2010-11, the university recycled 39 MT of electronics.

## Scrap Metal

A scrap metal bin has been placed on campus to collect any metal materials that are identified for disposal by campus departments. In 2010-11, the university's scrap metal program recycled over 33 MT of metal materials.

## Grease

Food Services continues to collect grease from its kitchen operations. This year, they sent 14 MT of grease to [Rothsay](#) for recycling.

## Leaf & Yard Waste

The Grounds department continues to dispose of campus leaf and yard waste at the local Kingston Area Recycling Centre (KARC). In 2010-11, approximately 28 MT of leaf and yard waste was diverted from landfill through this program.

## Organics

The University participates in an organic waste collection program that focuses on collecting food waste from the kitchens of the campus dining rooms and retail outlets. This is accomplished through the use of organics collection totes at all locations. The organics material is picked up and then transported by the campus waste hauler, BFI to the local [Norterra](#) facility for composting. The University has also installed Somat E-Corect systems in the two major dining rooms. The Somat machines are a high-speed food-waste-recycling machine that rapidly dehydrates food waste and compostable disposables. According to the results of this year's waste audit, the university is diverting 193 MT of organic waste through the organics program.

## Books (Better World Books)

[Better World Books](#) is a self-sustaining, for-profit social enterprise that collects and sells books online to fund literacy initiatives locally, nationally and around the world. In October 2010, Queen's was approached by Better World Books to participate in a book reuse and recycling program. Book collection depots were placed in the John Deutsch University Centre and two Residence buildings to collect books from students, staff and faculty. Stauffer Library, The Campus Bookstore and Tri-Colour Bookstore are also currently participating in this program. Over the past year, the campus has recycled 5040 books, donated 4993 books for reuse, diverting approximately 5 MT of books from landfill.

## Furniture Reuse (Freecycle@Work)

In August 2010, the furniture reuse program adopted an on-line exchange database through Intuit called [Freecycle@work](#). The system serves as a waste diversion tool to reduce the number of reusable items going to landfill. Over the past year there has been an increase in the user base and the number of items posted and exchanged. It's expected that Freecycle will become the mainstream campus asset exchange program and will allow the university to not only reduce the number of items sent to landfill but also cut down on costs associated with relocating, off-site storage and, repurchasing. In the last year the university has reused approximately 500 items, diverting 13.61 MT from landfill and saving the university an estimated \$100,000 through reuse.

## Plans for Program Expansion

### Office Organics

This program will focus on capturing food waste generated by staff who are bringing food into campus buildings during their work day. A recent survey aimed at students, staff and faculty revealed that of 61 respondents, 98% indicated that they would participate in a campus organics program if one was made available to them. The office organics program will be voluntary, and users must participate in the material removal. The Sustainability Office will provide logistical support including bins, information sheets highlighting what can and can't go into the organics stream, and support via email and phone to ensure participants are successful.

### Food Service Retail Operations – front-of-house organics

This program will focus on the front-of-the-house or post-consumer organic waste from retail food outlets across campus, including ILC (Tea Room), JDUC (AMS & Sodexo), Mac-Corry (Sodexo), Vic Hall (Lazy Scholar), Biosciences (Brown's), Botterell (Café).

## Exterior Recycling Containers

The Sustainability office continues to investigate container options to provide exterior recycling of cans, glass plastic and paper materials for campus users.

## Summary

Queen's is committed to finding ways to dispose of campus waste responsibly. Campus waste diversion programs continue to be monitored and reported on annually by the university. Existing campus waste programs are always being evaluated for improvement and new ones will be introduced in response to new legislation, environmental discoveries, and improved waste management technology. Of particular note in 2010-2011 are new waste reduction programs, including the online furniture reuse program, Freecycle@work, and the book reuse and recycling program, Better World Books. The Sustainability office also continues to raise awareness about waste reduction and diversion through such vehicles as Recyclemania competition and provincial awareness campaigns, such as [Waste Reduction Week](#). Ultimately, however, the success of these programs is dependent upon effective communication and the active participation of all campus users. This year, the university maintained a waste diversion rate of approximately 43%.

2010-2011		
Material	Tonnage	% Total Waste
Waste	1,449.47	52%
Grounds Waste	62.10	2%
Durables	92.65	3%
Cans, Glass & Plastic	303.46	11%
Mixed Fibre	571.76	20%
Organic Toters	100.43	4%
Leonard Organics	71.18	3%
Leaf & Yard	49.29	2%
Electronics	39.27	1%
Scrap Metal	33.13	1%
Furniture Reuse	13.61	0%
Books (including hardcover)	5.00	0%
Grease	14.22	1%
Total Waste Generated	2,805.57	
Total Diversion	1,201.35	43%