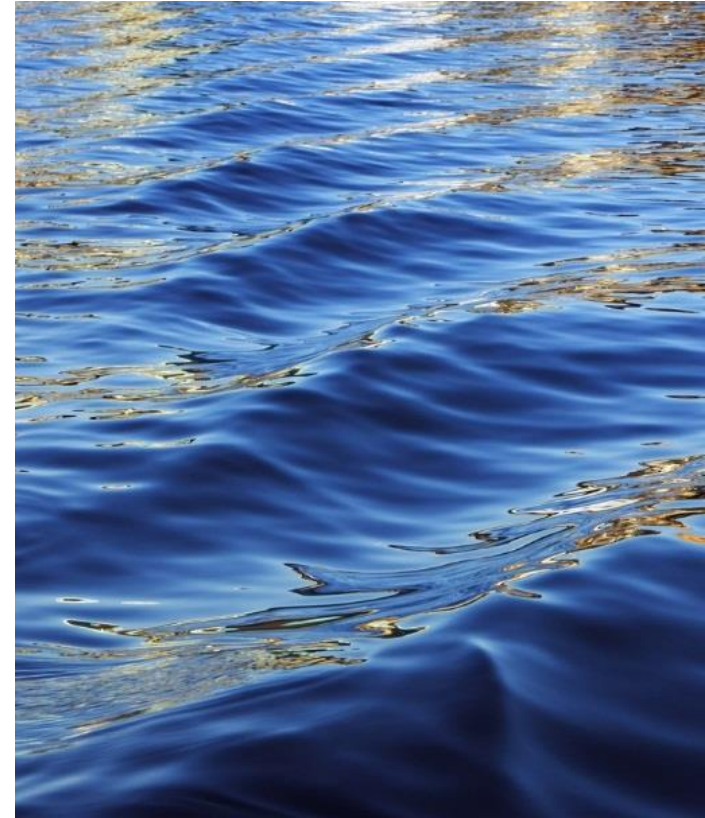


Campus Waste Management: B.A's, M.A.'s, Ph.D.'s and the 4R's

Reno Strano
Waste Management Supervisor
University of Toronto



REDUCE

Reuse

recycle

RETHINK!



What do we
do?



Ontario Regulation 103/94 - PART X

EDUCATIONAL INSTITUTIONS

- 1. Aluminium cans**
- 2. Cardboard**
- 3. Fine paper**
- 4. Glass bottles and jars**
- 5. Newsprint**
- 6. Steel food or beverage cans**

It's not just...

Paper
Bottles & Cans
Cardboard

Paper
Bottles & Cans
Cardboard
Electronics
CARTRIDGES
Organics
Light bulbs &
tubes
Scrap wood
**Scrap
Metal**

**YARD
WASTE**
Batteries
PALETTES
**Animal
Bedding**
Plastics
Furniture
Coffee Cups
**Laboratory Glass &
Plastic**

Concrete
Asphalt
Tires
SOIL & PLANTS
ROCKS
Polystyrene
Office Supplies
BOOKS
... AND COUNTING



How do we do it?

Caretaking

- ❖ **collects material inside buildings**
- ❖ **brings to collection area**

Recycling staff

- ❖ **picks up at collection areas**
- ❖ **special pickups and deliveries**

Grounds

❖ cleans up outside buildings

Campus movers

❖ large items and clean outs across campus





GARBAGE SENT TO LANDFILL



CONTAINERS FOR RECYCLING



PAPER FOR RECYCLING



PAPER COFFEE CUPS ONLY PLEASE REMOVE LIDS AND JACKETS



“If it grows, it goes!”



MIXED PAPER

DEPOSIT ALL PAPER FOR RECYCLING HERE

✓ YES (deposit here)	✗ NO (DO NOT deposit here)
✓ COMPUTER & COPY PAPER	✗ ANYTHING <u>NOT</u> MADE FROM TREES &...
✓ NEWSPAPERS/MAGAZINES/JOURNALS	✗ GARBAGE
✓ EMPTY PAPER BAGS	✗ CARBON & WAXED PAPER
✓ TEXTBOOKS (small quantities)	✗ BACKING FOR STICKY LABELS
✓ PHONE BOOKS (small quantities)	✗ PADDED ENVELOPES
✓ POST-IT NOTES/STICKY LABELS	✗ PLASTIC/FOAM CUPS
✓ FINE, COLOURED & FAX PAPERS	✗ CANDY WRAPPERS
✓ WINDOW & PAPER ENVELOPES	RECYCLE SEPARATELY
✓ FILE FOLDERS & GLOSSIES	PAPER COFFEE CUPS – NO LIDS
✓ PHOTOCOPY PAPER & WRAPPERS	BOTTLES & CANS (designated bins)
✓ PAPER TOWELS & TISSUES	CORRUGATED CARDBOARD (hallways)
✓ BOXBOARD e.g. Kleenex Boxes Fed Ex Mailers	LARGE QUANTITIES OF PHONE BOOKS OR TEXTBOOKS (call for pick-up)

NO Bottles **NO** Cans **NO** Garbage

U OF T WASTE REDUCTION & RECYCLING INFO LINE **416-978-7080**

WASTE MANAGEMENT **416-946-5711**



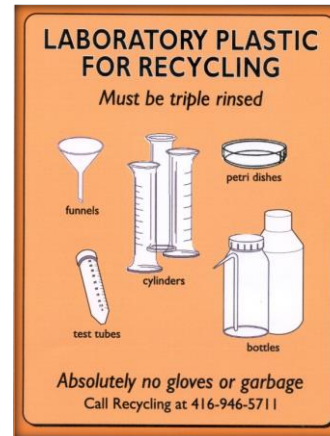
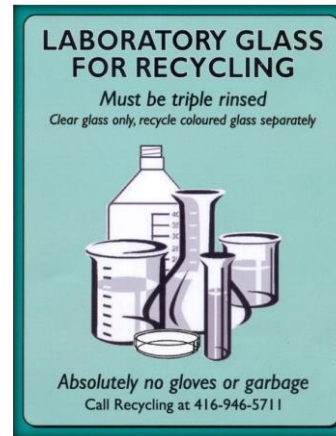


The big stuff



NON-HAZARDOUS, LABORATORY **GLASS** AND **PLASTICS** **RECYCLING PROGRAM**

NON-HAZARDOUS glass and plastic items used in laboratories can be recycled!



GLASS may be placed in the **TEAL** toters.

PLASTIC can go into the **ORANGE** toters.

This includes items such as, - though not limited to - test tubes, Petri dishes, pipettes and pipette racks, boxes, trays, bottles and jars.

Please ensure that items are **CLEAN, TRIPLE RINSED!**

NO HAZARDOUS MATERIALS!

NO GARBAGE! NO GLOVES!





Getting the message out



GET INVOLVED!

To become more involved with environmental issues at U of T, please contact any or all of the following groups:

The Sustainability Office

The Sustainability Office (www.sustainability.utoronto.ca) was launched in 2004 with the goal of substantially reducing the consumption of energy on the St. George campus. The Sustainability Office seeks to engage students, staff and faculty at the University in various environmental projects.

The Office also advises the University administration on ways to improve the environmental practices of the University and meet the objectives set out in the University's Environmental Protection Policy.

Contact the Sustainability Office at 416-946-5335 or e-mail sustainability@utoronto.ca.

Environmental Coordinators (ECs)

ECs act as liaisons between their own offices, departments or faculties and the Office of Waste Management. Call 416-946-5711 to join.

Environmental Students Union (ESU)

ESU is a student group that takes and represents students in environmental issues. Visit their web site at www.utoronto.ca/esu.

UTERN

University of Toronto Environment (UTERN) is an umbrella organization for environmental-oriented groups from across the University campus.

A full list of groups that focus on sustainability on campus can be found at <http://ulife.utoronto.ca/interenvironment>

Be paperless • I lug a mug • I purchase wisely • I do my part • I conserve • I take charge • I care • I recycle • I blue box • I made a difference • I am proud • I thank you • I swap shop • I create • I thought twice

14.00 x 8.50 in

DO YOU KNOW?

In 2014, the University of Toronto achieved a waste diversion rate of 70.58%. If used to full capacity, our programs could divert over 90% of our waste from landfill. The University of Toronto is one of the greenest institutions in the country and has recycled enough paper to equal a forest the size of the campus. Monthly, the University recycles an average of over 40 metric tonnes of paper. The University of Toronto was one of the first universities in North America to adopt an Environmental Protection Policy: www.governingcouncil.utoronto.ca/policies/enviro.htm

USEFUL CONTACTS

Campus Moving 416-978-0955

Grounds Services 416-978-2329

Environmental Protection Services (radioactive, biological, chemical hazards) 416-946-3473 – NEVER pour chemicals down drains!

Environmental Health and Safety ehs@utoronto.ca / Contact Us

recycling services



solution

reduce, reuse, recycle, re-think

Be part of the solution!

REDUCE

The first and best thing you can do. You can directly reduce your waste by NOT purchasing products or packaging that will quickly become waste. Avoid disposables. **DON'T PRINT YOUR E-MAILS!** Buy in bulk. Be aware of your consumption. When printing & photocopying use both sides of every page. Cancel paper copies of item such as catalogues and phone books which can be accessed digitally.

REUSE

Eat where they offer china service. Lug a mug! Some coffee shops give discounts for using and will fill up your mug instead of using a disposable cup. Contact the Recycling office at 416-946-5711 to get a reusable mug.

Use BOTH sides of every piece of paper. Instead of throwing out surplus equipment, supplies and furniture, send it to the **SWAP SHOP**. Why buy new? Pick up a good quality item here.

RECYCLE

Batteries

All types of batteries are collected for recycling by the Chemical Safety Department. There are a number of dedicated drop-off containers around campus where they may be dropped off. A complete list may be found on the recycling website: www.fs.utoronto.ca/recycle/rmr/battery.htm

Bottles, Cans, Cartons, Tubs

Aluminum, steel, glass and plastic beverage containers, empty paint and aerosol cans, milk & juice cartons, drink boxes, plastic tubs and lids, and food grade polystyrene are collected in designated bins inside and outside campus buildings. For more details see here: www.fs.utoronto.ca/recycle/rmr.htm

Books

Books of all kinds, including text books, may be sent to the Swap Shop for reuse. Small quantities can be recycled in blue totes along with old phone books and journals. For large quantities call 416-946-5711.

Coffee Cups

Paper coffee cups can be recycled in the indoor and outdoor recycling depots across campus as well as in designated containers by coffee stands and cafeterias. Please remove paper jackets and recycle them with paper. Lids and polystyrene cups (foam and clear plastic) and may be recycled with bottles & cans.

Computers, Electronics, Software and Tapes

Working equipment can be reused through the Swap Shop. Broken computers/electronics can be picked up for recycling. We also recycle all software (CDs, floppy etc.) and all video & audio tapes.

Corrugated Cardboard

Please FLATTEN YOUR BOXES and place them in hallways or designated collection areas. It is the generator's responsibility to flatten cardboard boxes. Please remove any plastic bags or wrapping.

Fluorescent and Incandescent Lights

All lights are collected. Fluorescents contain traces of mercury. To avoid releasing mercury into our environment, we collect, store and transport our bulbs to a contractor that safely and environmentally recycles up to 98% of each lamp.

Food Waste/Organics

Pre-consumer food waste is collected from the larger kitchens in specific containers. Post-consumer food waste is also collected in green bins across campus in cafeterias and kitchens. Large amounts of food waste must NOT be land filled. **"If it grows, it goes!"** Animal bedding is also collected from a select number of areas. The material is transported by our contractor and composted off campus.

Furniture and Supplies

Departments disposing of surplus furniture, office equipment and supplies may send items to the Swap Shop for reuse. Broken items may be recycled as scrap wood or metal. Contact Campus Moving at 416-978-0955 for large or numerous items. Call 416-946-5711 for an assessment. All members of the University community may drop off items from campus at the Swap Shop.

Mixed Paper

Mixed paper: binder paper, computer printouts, text books, newspapers, magazines, clean paper towels & napkins, empty paper bags, Bristol board, illustration board, cardboard e.g. boxes for tissues, ink jet cartridges, cereals, snacks etc. is collected in five ways:

- in blue totes located in hallways (check list on lid)
- in blue boxes in work areas and labs
- in blue desk-side recycling containers (you are requested to empty your own into a nearby tote or blue box)
- in 3- or 4-compartment depots located inside and outside buildings
- in large, blue, clean out totes – call 416-946-5711.

Please remove any plastic bags or wrapping.

Non-Hazardous Lab Glass and Plastic

NON-HAZARDOUS glass and plastic items used in laboratories can be recycled. See www.fs.utoronto.ca/recycle/Non-hazardous_Lab_GlassandPlastics.htm for details.

Paper Towels

Paper towels are collected from washrooms across campus and recycled through our Mixed Paper program. They may also be composted.

Plastics

Plastics not used to contain food or chemicals can be recycled through our programs. A list of acceptable items can be found at: <http://www.fs.utoronto.ca/recycle/plastic.htm>

Polystyrene (Styrofoam)

Polystyrene items are marked with a #6 or PS.

Packaging Grade Polystyrene (White Styrofoam) packaging should be placed in clear plastic bags and left in designated areas.

DO NOT RECYCLE "WHIMS" LABELLED FOAM BOXES. Food grade polystyrene such as clamshells and cups may be recycled with bottles and cans.

Printer, Fax and Photocopier Cartridges

Most cartridges come with return labels and should be returned to the manufacturer. For those without labels, departments may call Recycling for a pickup of ALL used inkjet, laser, fax machine and photocopier cartridges at 416-946-5711. Anyone may drop off cartridges at the Swap Shop, 487 Spadina Avenue.

Refrigerators & Other Equipment Containing Freon Fridges, freezers, centrifuges, ice machines, and other Freon containing equipment MUST be handled in accordance to Ministry of Environment guidelines. Call Campus Moving at 416-978-0955 for proper disposal. **DO NOT REMOVE THE EQUIPMENT FROM THE BUILDING!**

Rubber Tires

Rubber tires are collected and recycled as needed.

Swap Shop

The Swap Shop is the main reuse centre on campus. Surplus furniture, equipment and supplies are collected and stored. The Shop is open Wednesdays from September to May (excluding holidays) from 12-2 pm and allows the campus community to obtain said items. Any money collected is donated to the United Way. For more information call 416-978-7080, or visit: www.fs.utoronto.ca/recycle/swap.htm

Transparencies

Small amounts of acetate sheets used for overhead projections can be sent via campus mail to the Office of Waste Management, 255 McCaul St., 4th Floor. You may also drop them off at the Swap Shop, 487 Spadina Avenue. Please ensure they are not crumpled and that no paper separators are included.

Wood and Metal Scrap

Small amounts can be picked up free of charge. Larger amounts will require a service order. Sort and stack items neatly in your designated area. Call 416-946-5711 for an assessment.

Wooden Pallets

Pallets are collected, stored and reused. Broken or irregular pallets are recycled.

Yard Waste

All yard waste is collected and transported to various sites for processing. No plastic bags allowed.

RE-THINK

Make thinking about waste a part of your daily routine. Question what happens to it once you've tossed it away. For more information about any of our programs please visit us at www.fs.utoronto.ca/recycle.htm

Be creative.

Think reduce, then reuse and finally recycle. Putting something in the trash is your last resort.

OTHER IDEAS?

Send us your ideas for recycling other products. We'll be glad to listen.

E-mail reno.strano@utoronto.ca



**Yes, we are
that good.**

**72%
DIVERSION
RATE**



With your support, St. George Campus
achieved a waste diversion rate of
72% in 2012, one of the highest
of any North American institution.

Setting goals, exceeding expectations



UNIVERSITY OF
TORONTO



**THANKS
FOR THINKING**

With your support,
St. George Campus
achieved a waste
diversion rate of
72% in 2012,
one of the highest of any
North American institution.



UNIVERSITY OF
TORONTO





Reduce, Reuse, Recycle, Re-think

REDUCE

You can directly **REDUCE** your waste by:

- reviewing your purchasing practices
 - do not purchase products that will quickly become waste
 - do not purchase products with excessive packaging or non-recyclable packaging
 - do purchase products with a high recyclable content e.g. paper
 - do purchase products close to "home" whenever possible
- avoiding disposables
- not printing your e-mails... or web-pages!
- ordering fewer catalogues / request to not have physical catalogues sent to you
- sharing with your neighbours – do they have that extra note pad you're looking for?
- being aware of your consumption

REUSE

- Use BOTH sides of every piece of paper. Scrap paper makes ideal note pads.
- Instead of throwing out surplus equipment, supplies or furniture, send it to the [SWAP SHOP](#).
- Eat where they offer china service.

News

- [2017 Canada's Greenest Employers](#)
- [U of T brings city together for Toronto Sustainability Summit](#)
- [2016 - Annual Awards and Recognition](#)
- [Latest UofT Waste Audit published](#)
- [EAB Recognition of 255 McCaul 4th floor office space](#)
- [F&S team awarded at CAUBO 2016](#)

Reports

- [Sustainability Reports](#)
- [LEED Certified Buildings - St. George Campus](#)
- [Customer Survey Reports](#)

REUSE

- Use BOTH sides of every piece of paper. Scrap paper makes ideal note pads.
- Instead of throwing out surplus equipment, supplies or furniture, send it to the [SWAP SHOP](#).
- Eat where they offer china service.
- Lug a mug! – many coffee shops give discounts for using refillable containers.
- Instead of a disposable cup, **LUG-A-MUG!**



RECYCLE

BATTERIES

Click [here](#) for information on what to do with batteries.



- Sustainability Reports
- LEED Certified Buildings - St. George Campus
- Customer Survey Reports
- Deferred Maintenance Reports & Presentations

Projects

- Robarts Library Energy Reduction Project
- MSB Energy Reduction Project
- OISE Energy Reduction Project
- Invoice Workflow Solution

Awards and Recognitions

We are committed to service excellence, value for money, sustainability, health & safety and continual improvement – check out our latest awards & recognition [here](#)

Design Standards

- SOP and Request Forms
- Design Standards Part One
- Design Standards Part Two



Student Orientation

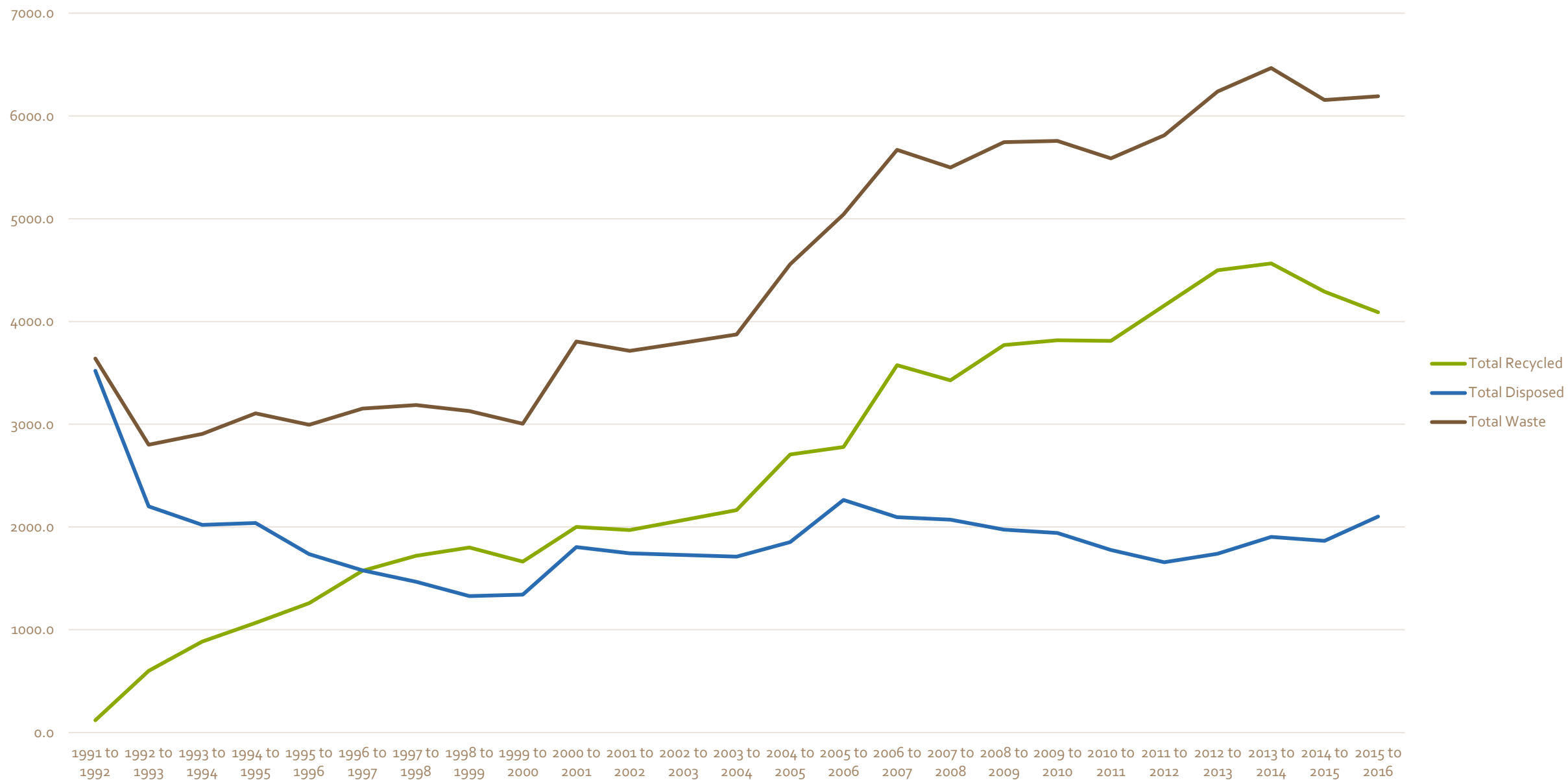




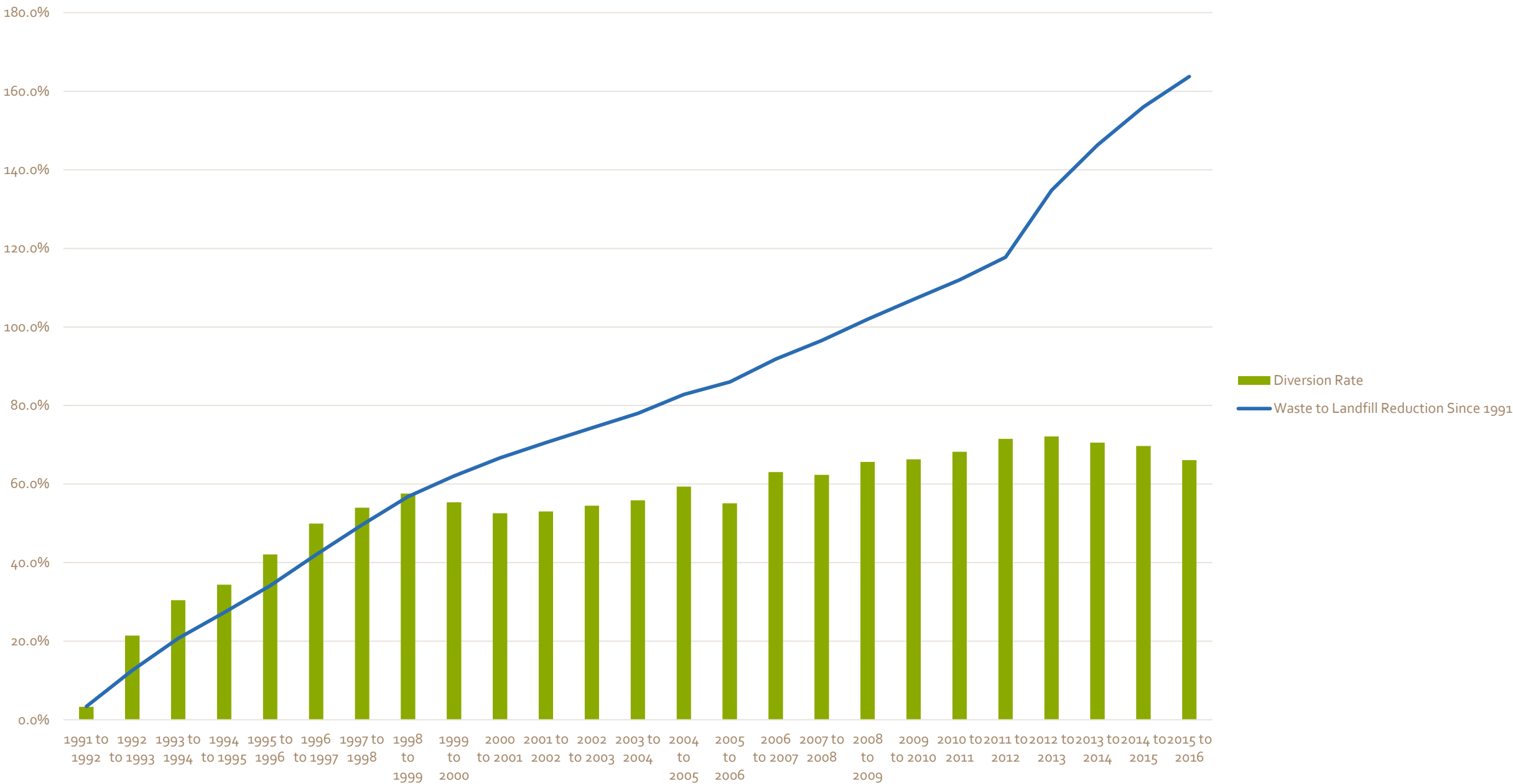
The numbers



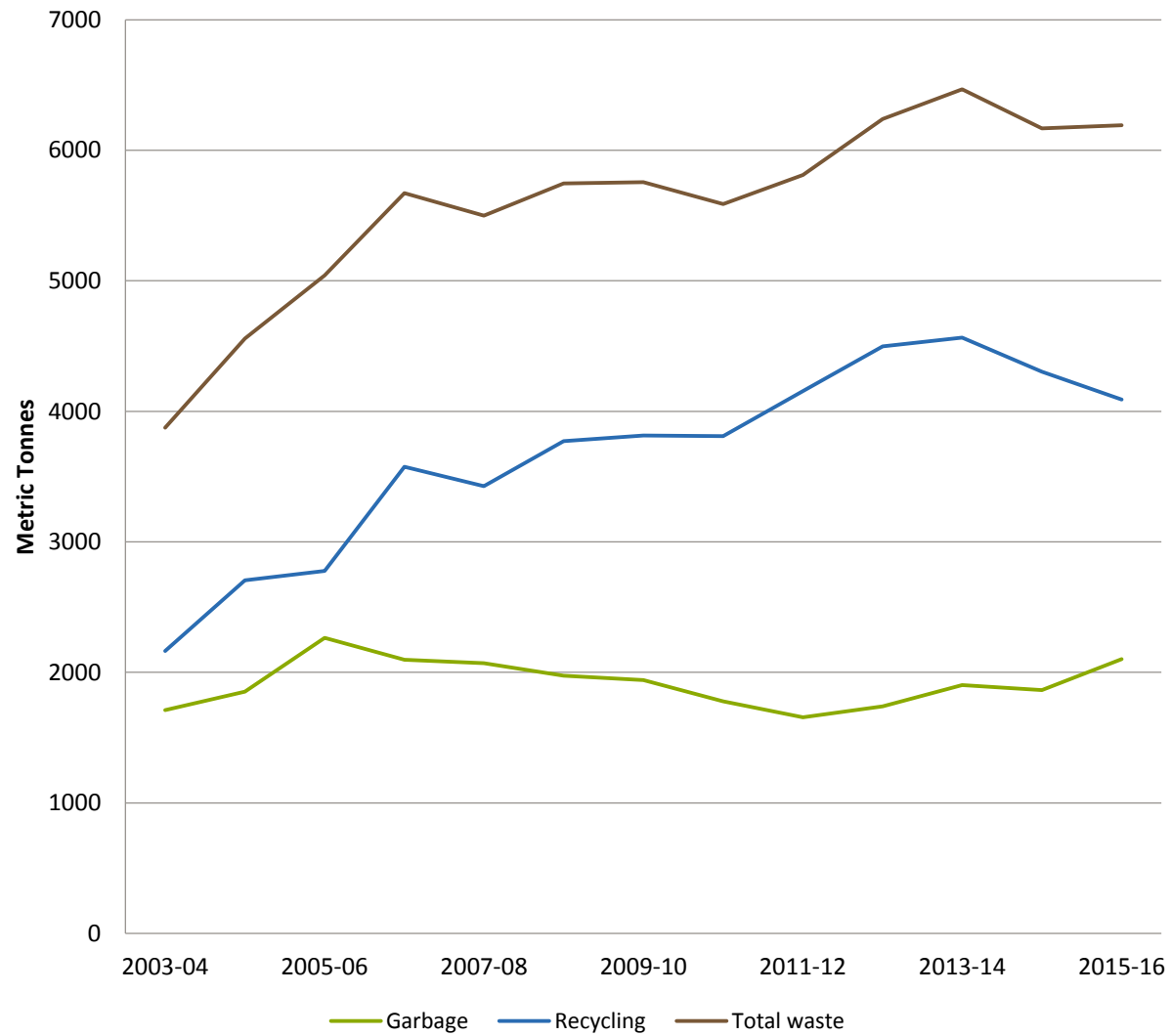
Garbage and Recycling Over the Long Haul



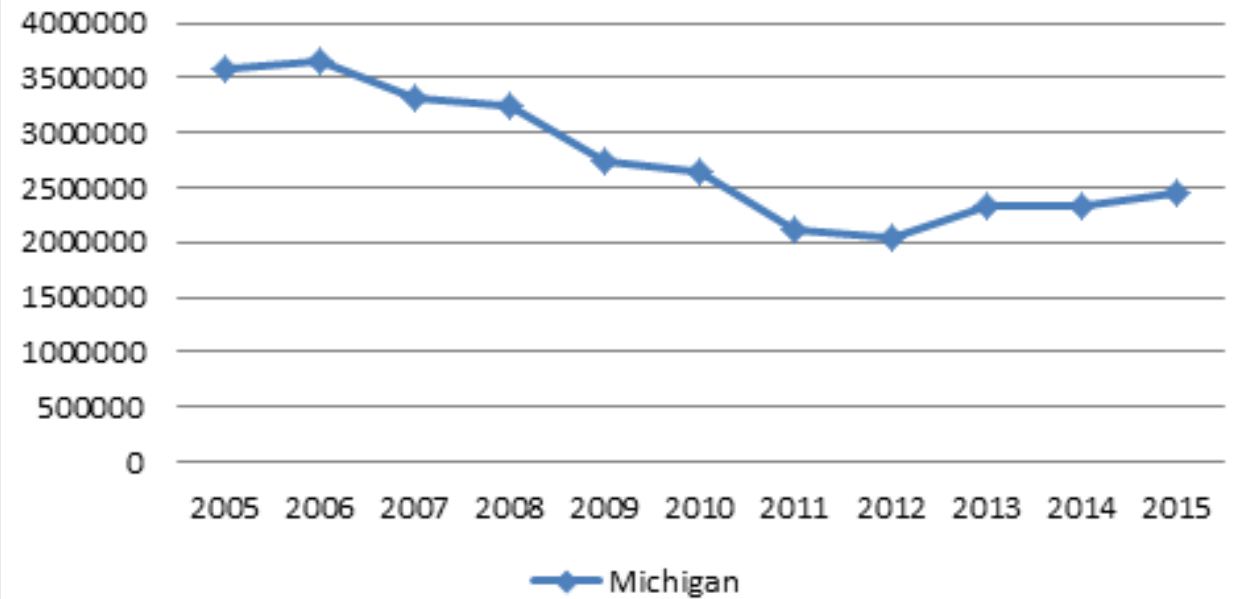
Reduced Waste, Annual Diversion Rate



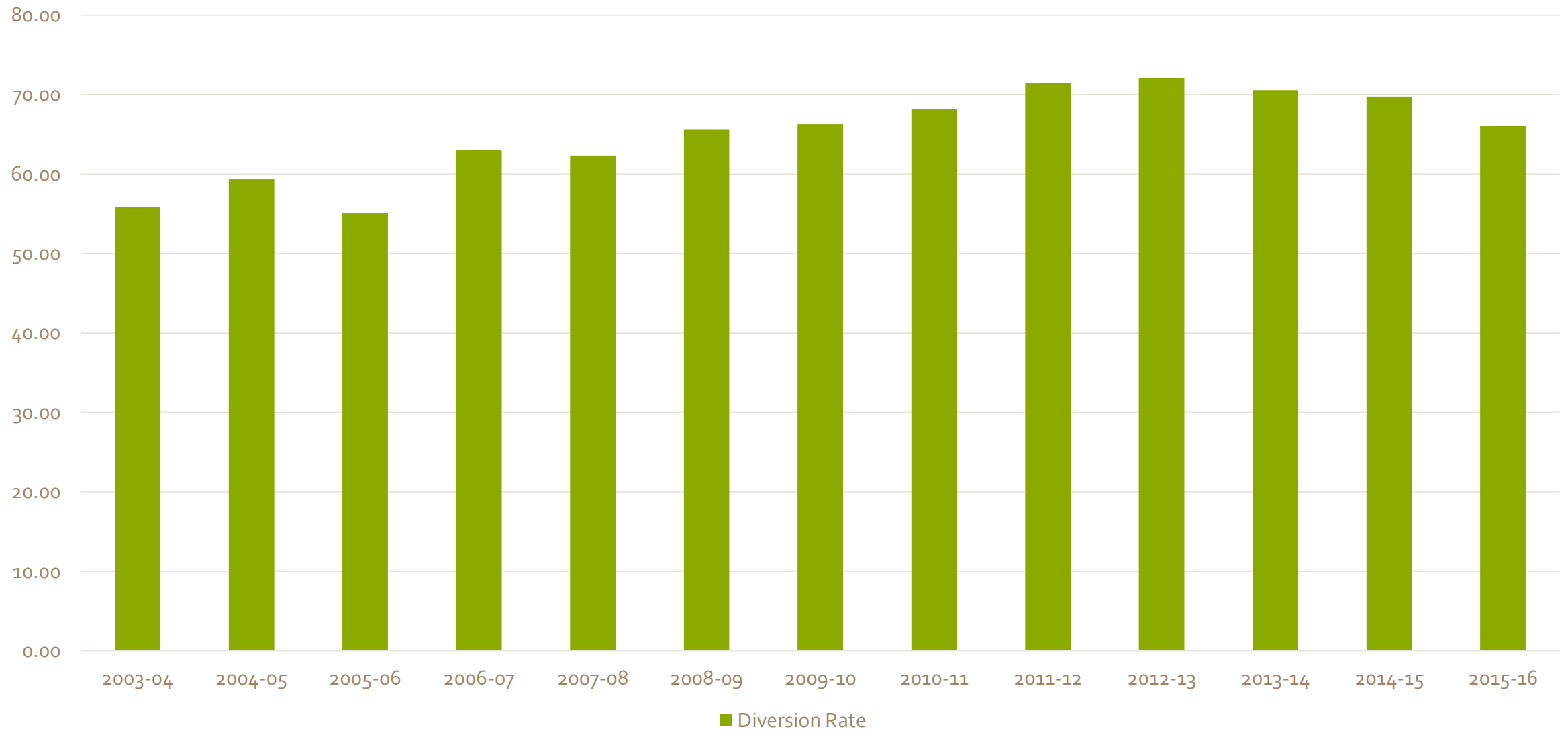
Garbage vs. recycling



Canadian Waste Exports to Michigan



Diversion Rate



ONTARIO REGULATION 102/94

WASTE AUDITS AND WASTE REDUCTION WORK PLANS

PART X – EDUCATIONAL INSTITUTIONS

Waste Audits

❖ Twice a year

❖ Spring and Fall
or

❖ Summer and Winter

❖ 24-hour sample study

❖ Garbage compactor
study

Waste Audit Data Collection Sheet

Client: University of Toronto, St. George Campus
Site: Rotman School of Management 95 St. George
Date: Apr-21-15

Area of Collection:		Offices		Labs		Public Areas		Cafeteria		Washrooms		Miscel.		Unlabeled		Total	
Colour Code		Blue		Yellow		Black		Green		Red		White		Unlabeled			
Total Weight of Sample (in kg):		11.90				27.95		7.45		7.95						55.25	
Total Percent of Sample (in %):		21.5%		0.0%		50.6%		13.5%		14.4%		0.0%		0.0%		100.0%	
Composition of Garbage:		kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%	kg	%
	Total Mixed Papers	3.700	31.1%			0.300	1.1%	0.000	0.0%	0.250	3.1%					4.25	7.7%
	Total Mixed Containers	0.800	6.7%			1.000	3.6%	3.350	45.0%	0.000	0.0%					5.15	9.3%
	Corrugated Cardboard	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	Coffee Cups	0.700	5.9%			1.550	5.5%	0.300	4.0%	0.050	0.6%					2.60	4.7%
	Styrofoam	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	Organic Food Waste	0.800	6.7%			8.650	30.9%	3.600	48.3%	0.000	0.0%					13.05	23.6%
	Paper Towels	0.000	0.0%			0.000	0.0%	0.000	0.0%	7.650	96.2%					7.65	13.8%
	E-waste/electronics	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	Metal	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	Wood	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	LDPE Plastic Films	0.000	0.0%			0.000	0.0%	0.000	0.0%	0.000	0.0%					0.00	0.0%
	Other / Non recyclable	5.90	49.6%			16.45	58.9%	0.20	2.7%	0.00	0.0%					22.55	40.8%
Total QAQC Check		11.90	100.0%	0.00	0.0%	27.95	100.0%	7.45	100.0%	7.95	100.0%	0.00	0.0%	0.00	0.0%	55.25	100.0%



**It's not all rainbows and
sunshine. ☹️**



Contamination





Recycling
Council of
Ontario

www.rco.on.ca

2015 RCO Awards Gold Winner



Property Profile



UNIVERSITY OF TORONTO



3RCERTIFIED STATUS

Silver

November 2014 - October 2017

PROPERTY TYPE

Educational Establishment (University)

ADDRESS

27 King's College Circle
Toronto, ON

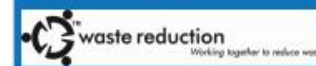
ESTABLISHED

1827

PROPERTY MANAGER

University of Toronto Facilities & Services

PROJECT MANAGER



PROFILE

The Downtown Toronto (St. George) campus of the University of Toronto is a large multi-facility community with approximately 60,000 students, staff, and faculty who occupy several major city blocks with more than 140 buildings that generate waste and recycling material.

The University has recycling and reuse programs in place for almost every waste material it produces, and has several other programs in place to reduce wastes before they are even generated. As a result, the campus boasts one of the highest diversion rates of any university in the country. Its success can be attributed to frequent and clear communications to students, staff, and faculty; and to programs and containers that are found everywhere on campus and are simple and easy to use.

WASTE REDUCTION HIGHLIGHTS

Laboratories: Non-hazardous laboratory glass and plastic material is collected in reusable totes for recycling, and has eliminated approximately five metric tonnes (MT) of plastic waste alone. For 2013 and 2014, total lab material diverted is approximately 23.6 MT.

Food services: eliminated trays from New College cafeteria and patrons altered the amount of food collected at the counter, which reduces the amount of organic waste.

U of T Swap Shop: year-round service to store furniture, office equipment, supplies, and other items; departments and individuals are able to exchange items, and heavy furniture is constantly reused.

QR codes: barcodes are on all recycling bins to enable anyone with a smartphone to find out what items are accepted to limit contamination.

Environmental Co-ordinators: a list of approximately 200 contacts across campus is maintained to spread information about the waste management program.

Green Ambassadors: a network of staff who work to improve the environmental sustainability of their offices and campus, which includes waste.

Green procurement: carpeting suppliers are required to ensure that the carpet can be reclaimed and diverted from landfill once it reaches end-of-life.

More information on Facilities & Services at the University of Toronto is at sustain.fs.utoronto.ca



3RCertified recognizes organizations and properties that demonstrate leadership in waste reduction and diversion. It aims to standardize and enhance waste minimization practices through a comprehensive analysis of the entire lifecycle of material management. 3RCertified status is awarded at one of four levels based on the total number of points earned, and on-site third-party evaluation. For more visit www.3RCertified.ca





www.fs.utoronto.ca/building-services-trades/recycling-services

reno.strano@utoronto.ca