

# RECYCLING & TRASH REPORT FY 2014

## EXECUTIVE SUMMARY

In May 2010, Temple University adopted its Climate Action Plan, which addresses the role of recycling and waste minimization as part of its comprehensive efforts to reduce the university’s carbon footprint. The plan established a goal of increasing the recycling rate to 40% and reducing the amount of greenhouse gas emissions derived from land-filled solid waste by 10% by 2015 relative to its 2006 baseline levels.

Temple’s recycling (diversion) rate increased to 44%, surpassing the projected goal of reaching a 40% recycling rate by 2015. Since 2006, Temple has increased recycling by 1,042 tons (a 74% increase) and reduced waste by 1,293 tons (a 29% reduction). The university has reduced its greenhouse gas emissions attributed to solid waste by 4,260 MTeCO<sub>2</sub> from 2006 to 2014. This is the equivalent to the CO<sub>2</sub> emissions that come from burning 4,575,725 pounds of coal.

In an effort to track university trends in recycling and waste minimization efforts, Temple University’s Office of Sustainability prepares an annual Recycling & Trash Report. Recycling and trash data is provided by university affiliates and compiled by the Office of Sustainability into one report. Below is a summary of recycling and trash data for FY 2014.

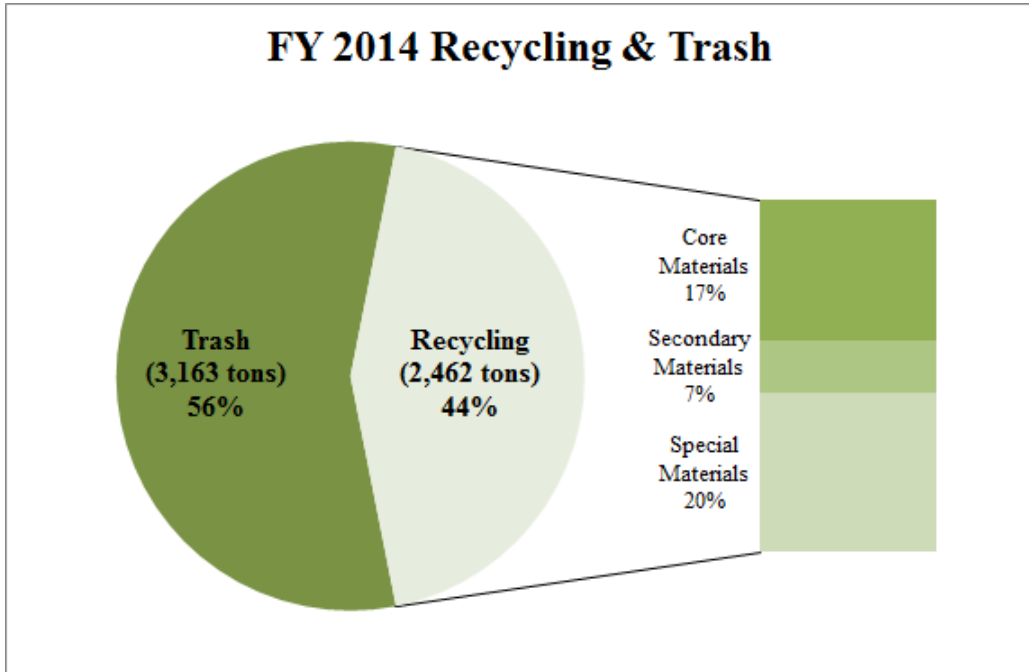
FY 2014 Materials	Main Podiatry HSC Ambler	Res. Halls	Gittis Student Center	Liacouras Center	Diamond Club	Total Tons Collected	%	Total Cost	Cost per Ton
<b>Recycling</b>	2,443.25	-*	-*	19.01	-*	2,462.26	44%	\$8,883	\$3.61
<b>Trash</b>	1,860.14	944.66	277.75	54.80	26.50	3,163.85	56%	\$585,996	\$185.22
<b>Total</b>	4,303.39	944.66	277.75	73.81	26.50	5,626.11	100%	\$594,880	\$105.74

\* Recycling materials (including compost) are included with Main Campus (column 2)

From FY 2013 to FY 2014, recycling amounts increased by 808 tons which was primarily due to the addition of reporting surplus sales in FY 2104 and the adjustment to the estimated amount of wood pallets being recycled on an annual basis. Trash amounts increased by 247 tons from FY 2013 to FY 2104. The opening of a new residence hall (Morgan) caused an overall increase in university solid waste amounts.

In FY 2104, core material recycling made up 17% of the total waste stream (40% of total recyclables).<sup>1</sup> Secondary material recycling, such as compost, made up 7% of the total waste stream (15% of total recyclables). Special materials account for the greatest portion of recyclables consisting of 20% of the total waste stream and 45% of total recyclables.

<sup>1</sup> Core materials include plastics, metals, paper and cardboard



## FY 2014 PROGRAM HIGHLIGHTS

**Zero Waste Events:** Temple hosted zero-waste events, such as the Tri-State Sustainability Symposium and the Waste Management Conference.

**RecycleMania 2014:** Temple continued to participate in the annual RecycleMania competition, and secured its first national victory in the Game Day Organics Competition.

**Recycling Program:** Temple expanded its recycling program to include plastics #1 through #7.

**Outreach/Education:** Temple continues to promote its recycling plan on social media through events like “Caught Green Handed,” various waste minimization themed presentations and programming. Temple conducted its first annual housekeeping training on recycling.

**TOSS:** Temple introduced the Temple Office Supply Swap (TOSS). TOSS collects unwanted and lightly used office supplies and then hosts pop-up carts around campus to provide discarded/donated office supplies to Temple students, faculty, and staff.

**Composting:** Temple implemented composting at the Liacouras Center, including pre-consumer waste and composting in suites and at catered events.

**E-Waste:** Temple’s Computer Recycling Center (CRC) recycled or refurbished 58 tons of computers, continuing the trend of keeping e-waste out of the trash stream. The university also participated in the RecycleMania e-waste category for the first time in 2014.

**Water Bottle Filling Stations:** Temple installed three additional water bottle filling stations to reduce the number of single use bottles.

**Scrap Metal and Surplus Sales:** A new policy regarding tracking of scrap metal recycling and surplus sales was implemented to more accurately track quantities and revenues.

## RECYCLING & TRASH REPORT ATTACHMENTS FY 2014

### FY 2014 Recycling and Trash Collection Summary

	Main Podiatry <sup>a</sup> HSC <sup>a</sup> Ambler	Residence Halls <sup>b</sup>	Gittis Student Center <sup>b</sup>	Liacouras Center	Diamond Club <sup>b</sup>	Total Tons Collected <sup>c</sup>	%	Total Cost	Cost Per Ton
<b>Recycling</b>	<b>2,443.25</b>	-	-	<b>19.01</b>	-	<b>2,462.26</b>	<b>44%</b>	<b>\$8,883</b>	<b>\$3.61</b>
<b>Trash</b>	<b>1,860.14</b>	<b>944.66</b>	<b>277.75</b>	<b>54.80</b>	<b>26.50</b>	<b>3,163.85</b>	<b>56%</b>	<b>\$585,996</b>	<b>\$185.22</b>
<b>Total</b>	<b>4,303.39</b>	<b>944.66</b>	<b>277.75</b>	<b>73.81</b>	<b>26.50</b>	<b>5,626.11</b>	<b>100%</b>	<b>\$594,880</b>	<b>\$105.74</b>

**Notes:**

- (a) Health Sciences Center (HSC) includes Temple University buildings only, not buildings owned by Temple University Health System.  
Podiatry includes school and housing
- (b) Recycling materials are included in column 2.
- (c) Total tons collected do not include construction materials.

## FY 2014 Trash Collection Report

Basic Materials	Main Podiatry <sup>a</sup> HSC <sup>a</sup> Ambler	Residence Halls	Gittis Student Center	Liacouras Center	Diamond Club	Total Tonnage	%	Total Cost	Cost Per Ton
<b>Truck Collections</b> <sup>b</sup>	1245.03	0	0	0	0	1245.03	39%	\$341,621	\$274.39
<b>Outside vendors</b> <sup>c</sup>	615.11	944.66	277.75	54.8	26.5	1918.82	61%	\$244,375	\$127.36
<b>Total Trash</b>	1860.14	944.66	277.75	54.8	26.5	3163.85	100%	\$585,996	\$185.22

**Notes:**

(a) Health Sciences Center (HSC) includes Temple University buildings only, not buildings owned by Temple University Health System.  
Podiatry includes school and housing

(b) Truck collections refer to the truck collection of trash by Temple employees and includes personnel costs, vehicle maintenance and fuel, tipping fees to landfills.

(c) Outside vendors refer to the costs paid to outside vendors to haul open full containers and tipping fees to landfills.

Does not include the costs of Temple employees to fill the open containers.

## FY 2014 Recycling Report

	Main Podiatry HSC	Ambler	Liacouras Center	Total Recycling	Total Recycling Costs
<b>Basic Materials</b>	Tons	Tons		Tons	
Mixed Office Paper	580.97	26.32		607.29	
Corrugated Cardboard	256.63	8.78	2.87	268.28	
Bottles & Plastics (co-mingled)	66.32	3.88		70.20	
Single Stream (Morgan Hall & Liacouras)	24.82	0.00	10.44	35.26	
<b>Subtotal - Basic Materials</b>	<b>928.74</b>	<b>38.98</b>	<b>13.31</b>	<b>981.03</b>	<b>\$53,096.34</b>
<b>Secondary Materials</b>					
Food Compost	180.77	0.00	5.70	186.47	
Fryer Oil	25.00	0.00		25.00	
Vegetation Compost	111.06	46.17		157.23	
<b>Subtotal - Secondary Materials</b>	<b>316.83</b>	<b>46.17</b>	<b>5.70</b>	<b>368.70</b>	<b>\$35,578.68</b>
<b>Special Materials</b>					
Computer Equipment - Reused/Recycled	58.00	0.00		58.00	
Toner & Ink Jet Cartridges	3.12	0.00		3.12	
Universal Waste	1.67	0.00		1.67	
Chemical Recycled Materials	14.38	0.00		14.38	
Scrap Metal	34.31	0.00		34.31	
Surplus Sales	75.93	0.00		75.93	
Pallets	780.00	0.00		780.00	
Tyler Glass	8.30	0.00		8.30	
Revolution Recovery bulk waste	102.37	0.00		102.37	
Donations	30.82	0.00		30.82	
Plastic Bags	1.28	0.00		1.28	
Residential Hall Give + Go Green	2.35	0.00		2.35	
<b>Subtotal - Special Materials</b>	<b>1,112.53</b>	<b>0.00</b>		<b>1,112.53</b>	<b>-\$79,791.60</b>
<b>Campus Totals</b>	<b>2,358.10</b>	<b>85.15</b>	<b>19.01</b>	<b>2,462.26</b>	<b>\$8,883.42</b>

Total Recycling Cost: \$8,883.42  
 Total Tons of Recycling: 2,462.26

## 2006 - 2014 Recycling and Trash Summary

Calendar Year (unless noted otherwise)	(1a)	(1b)	(2a)	(2b)	(3a)	(3b)	(4a)	(4b)	(5a)	(5b)	(6a)	(6b)	(7a)	(7b)	(8a)	(8b)	(9a)	(9b)
	Main, Podiatry, HSC <sup>a</sup> , Ambler, Tyler tons		Residence Halls <sup>b</sup> tons		Gittis <sup>b,c</sup> tons		Liacouras <sup>c</sup> tons		Diamond Club <sup>e</sup> tons		Total Tons Collected <sup>d</sup> tons % of total		Total Cost \$		Cost Per Ton \$		GHG Emissions MTeCO2	
2006 Recycling	1,407.51		-		-		6.97				1,414.48	24%	\$42,701		\$30.19			
2006 Trash	2,707.90		1,224.91		438.19		68.88				4,439.88	76%	\$458,095		\$103.18		13,676	
2006 Total	4,115.41		1,224.91		438.19		75.85				5,854.36	100%	\$500,796		\$85.54			
2007 Recycling	1,659.50		-		-		6.97				1,666.47	28%	\$39,898		\$23.94			
2007 Trash	2,524.24		1,198.09		438.19		68.88				4,229.40	72%	\$483,145		\$114.23		13,028	
2007 Total	4,183.74		1,198.09		438.19		75.85				5,895.87	100%	\$523,043		\$88.71			
2008 Recycling	1,566.96		-		-		6.97				1,573.93	29%	\$42,549		\$27.03			
2008 Trash	2,459.74		972.99		438.19		68.88				3,939.80	71%	\$583,130		\$148.01		12,136	
2008 Total	4,026.70		972.99		438.19		75.85				5,513.73	100%	\$625,679		\$113.48			
2009 Recycling	1,607.60		-		-		8.26				1,615.86	32%	\$55,096		\$34.10			
2009 Trash	2,043.77		896.16		388.85		61.50				3,390.28	68%	\$524,831		\$154.80		10,442	
2009 Total	3,651.37		896.16		388.85		69.76				5,006.14	100%	\$579,927		\$115.84			
2010 Recycling	1,539.32		-		-		11.88				1,551.20	30%	\$53,219		\$34.31			
2010 Trash	2,267.10		829.27		389.88		87.92				3,574.17	70%	\$571,392		\$159.87		11,009	
2010 Total	3,806.42		829.27		389.88		99.80				5,125.37	100%	\$624,611		\$121.87			
FY2011 Recycling	1,611.23		-		-		12.44				1,623.67	33%	\$46,940		\$28.91			
FY2011 Trash	2,241.22		590.03		376.48		100.70				3,308.43	67%	\$544,018		\$164.43		10,191	
FY2011 Total	3,852.45		590.03		376.48		113.14				4,932.10	100%	\$590,958		\$119.82			
FY2012 Recycling	1,719.54		-		-		13.54				1,733.08	35%	\$29,868		\$17.23			
FY2012 Trash	2,006.45		800.16		378.03		67.36				3,252.00	65%	\$546,170		\$167.95		7,780	
FY2012 Total	3,725.99		800.16		378.03		80.90				4,985.08	100%	\$576,038		\$115.55			
FY2013 Recycling	1,641.21		-		-		13.47				1,654.68	36%	\$38,895		\$23.51			
FY2013 Trash	1,874.50		627.93		325.45		62.36		26.52		2,916.76	64%	\$468,612		\$160.66		6,892	
FY2013 Total	3,515.71		627.93		325.45		75.83		26.52		4,571.44	100%	\$507,507		\$111.02			
FY2014 Recycling	2,443.25		-		-		19.01				2,462.26	44%	\$8,883		\$3.61			
FY2014 Trash	1,860.14		944.66		277.75		54.80		26.50		3,163.85	56%	\$585,996		\$185.22		9,416	
FY2014 Total	4,303.39		944.66		277.75		73.81		26.50		5,626.11	100%	\$594,880		\$105.74			

### Comparison CY 2006 and FY 2014

	Main, Podiatry, HSC <sup>a</sup> , Ambler, Tyler		Residence Halls <sup>b</sup>		Gittis <sup>b,c</sup>		Liacouras <sup>c</sup>		Diamond Club		Total Tons Collected <sup>d</sup>		Total Cost		Cost Per Ton		GHG Emissions	
	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	\$	% chg	\$	% chg	MTeCO2	% chg
Recycling	1,035.74	74%	-	NA	-	NA	12.04	173%	-		1,047.78	74%	-\$33,818	-79%	-\$26.58	-88%		
Trash	(847.76)	-31%	(280.25)	-23%	(160.44)	-37%	(14.08)	-20%			-1,276.03	-29%	\$127,901	28%	\$82.04	80%	-4,260	-31%
Total	187.98	5%	(280.25)	-23%	(160.44)	-37%	(2.04)	-3%			-228.25	-4%	\$94,084	19%	\$30.01	35%		

### Comparison FY 2013 and FY 2014

	Main, Podiatry, HSC, Ambler, Tyler		Residence Halls		Gittis		Liacouras		Diamond Club		Total Tons Collected		Total Cost		Cost Per Ton		GHG Emissions	
	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	tons diff	% chg	\$	% chg	\$	% chg	MTeCO2	% chg
Recycling	802.04	49%	-	NA	-	NA	5.54	41%	-	NA	807.58	49%	-\$30,012	-77%	-\$19.90	-85%		
Trash	(14.36)	-1%	316.73	50%	(47.70)	-15%	(7.56)	-12%	-0.02	0%	247.09	8%	\$117,384	25%	\$24.55	15%	2,524	37%
Total	787.68	22%	316.73	50%	(47.70)	-15%	(2.02)	-3%	-0.02	0%	1,054.67	23%	\$87,373	17%	\$4.66	4%		

#### Notes:

- <sup>a</sup> Health Sciences Center (HSC) includes Temple University buildings only, not buildings owned by Temple University Health System.
- <sup>b</sup> Residence Halls' and Gittis recycling materials are included in column 1a.
- <sup>c</sup> Collection of recycling and trash for Gittis Student Center and Liacouras Center for CY 2006-07 are estimated using the actual numbers for CY 2008.
- <sup>d</sup> Total tons collected does not include construction materials.
- <sup>e</sup> The collection of Diamond Club recycling and trash data began in FY2013. Recycling materials are included in column 1a (including compost amounts).