



Waste Data

August 2012 to July 2013

Comprehensive waste arisings data covering Old Aberdeen,
Foresterhill and outliers

Waste Manager
February 2014

Executive summary

In the last financial year, August 2012 to the end of July 2013, the University produced **1305.16** tonnes of waste. The table below illustrates how this figure is compiled. Of this overall figure; **1.48%** of waste was reused, predominantly through charitable donation, **40.72%** was recycled, **56.88%** was disposed of to landfill and the remaining **0.92%** went to heat treatment technologies. The highlight of this reporting period is the recycling percentage attained, for the first time since the inclusion of clinical waste, the University has surpassed 40%.

In this reporting period there has been a significant decrease in total waste arising, down from 1611.55 tonnes in the previous year. This decrease is in part due to the general waste collections at the halls of residence changing from Total Waste Management to Aberdeen City Council. Aberdeen City Council cannot provide waste data as their vehicles do not have on board weighing facilities.

Similarly to last year, statistics for clinical waste disposal are fairly high and comprise a significant contribution to the overall waste tonnage with no alternative form of disposal other than landfill presently. Due to the nature of the University's research it is unlikely that there will be significant changes to the clinical waste volumes.

Waste stream	Outlet	Tonnage	Accuracy of data
Books	Reused	0.988	Data provided by contractor
Cans	Recycled	1.280	Data provided by contractor
Cardboard/ Non confidential paper	Recycled	97.021	Data provided by contractor
Charitable donations	Reused	11.587	Estimated
Chemicals and WEEE	Recovered	11.771	Data provided by contractor
Chemicals and WEEE	Recycled	25.710	Data provided by contractor
Chemicals and WEEE	Disposed	0.141	Data provided by contractor
Clinical Waste	Disposed	113.455	Data provided by contractor
Computer equipment	Reused	6.588	Data provided by contractor
Computer equipment	Recycled	26.631	Data provided by contractor
Computer equipment	Disposed	0.561	Data provided by contractor
Computer equipment	Recovered	0.182	Data provided by contractor
Food	Recycled	20.125	Data provided by contractor
Garden waste	Recycled	181.050	Data provided by contractor
Glass	Recycled	0.986	Data provided by contractor
General waste	Disposed	628.269	Data provided by contractor
Items reused internally	Reused	0.120	Estimated
Paper (confidential)	Recycled	111.73	Data provided by contractor
Plastics	Recycled	5.336	Data provided by contractor
Scrap metal	Recycled	31.60	Data provided by contractor
Textiles	Recycled	1.423	Data provided by contractor
Wood	Recycled	28.610	Data provided by contractor
Figures shown are in tonnes	Total waste produced	1305.160	

Comparison against previous years

	2012/2013		2011 /2012		2010/2011		2009/2010		2008/2009		2007/2008	
	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes
Reused	1.48	19.28	5.01	80.74	0.94	13.517	1.58	25.139	1.39	25.35	1.00	15.54
Recycled	40.72	531.5	34.02	548.31	34.76	501.18	35.99	572.845	41.95	766.58	36.00	694.69
Recovered	0.92	11.95	0.27	4.29	0.00	0	0.00	0	0.00	0	0.00	0
Disposed	56.88	742.43	60.70	978.21	64.31	927.24	62.43	993.562	56.66	1035.22	63.00	1228.8

Waste stream information and cost trends

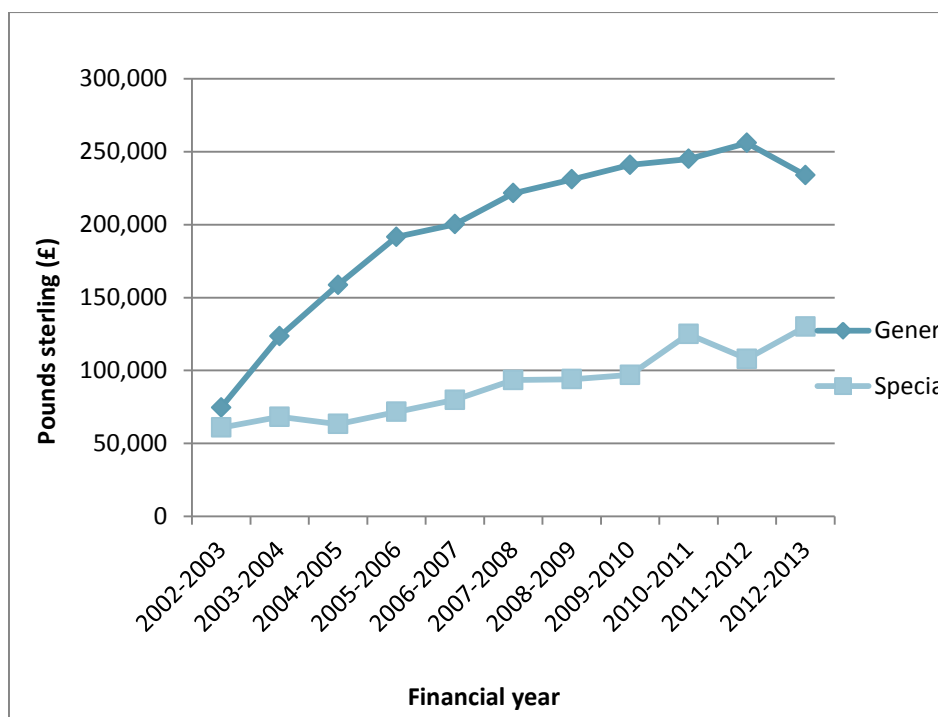
Contractors used on site

The table below shows the contractors used to treat wastes produced as part of University operations.

Waste stream	Waste contractor
Books	Oxfam
Cardboard recycling	Total Waste Management Alliance (TWMA) / Highland Council
Chemicals and WEEE waste	Enviroco
Clinical waste collections at Foresterhill	NHS Grampian (contracting Healthcare Environmental Services)
Clinical waste collections at Old Aberdeen	Healthcare Environmental Services
Computer equipment for reuse only	Reusing IT
Computer equipment for reuse and recycling	TES-AMM
Confidential and non-confidential paper recycling	Shred-it (North East) Ltd
Food waste	Keenan Recycling Ltd
Furniture	New Hope Trust
General waste disposal	TWMA / Highland Council/ Aberdeen City Council
Glass bottles	TWMA/Aberdeen City Council / Highland Council
Glass sheet	TWMA
Mattresses	TWMA
Plastic (mixed)	TWMA
Plastic bottles	Aberdeen City Council / Highland Council
Recyclate through recycling points	Aberdeen City Council
Sanitary waste collections	Cannon Hygiene
Scrap metal	Panda Rosa
Textiles	New Hope Trust
Tip boxes	Labwaste
Wood	TWMA

Waste budget

The graph below illustrates budget allocation for waste management. The trend for special waste shows an overall increase due to the cost of these collections rising and the volume of materials being disposed increasing. For the first time the general waste budget reduced however this downward trend is unlikely to continue unless waste arising significantly reduces due to an annual landfill tax escalator and the rise in transportation and labour costs.



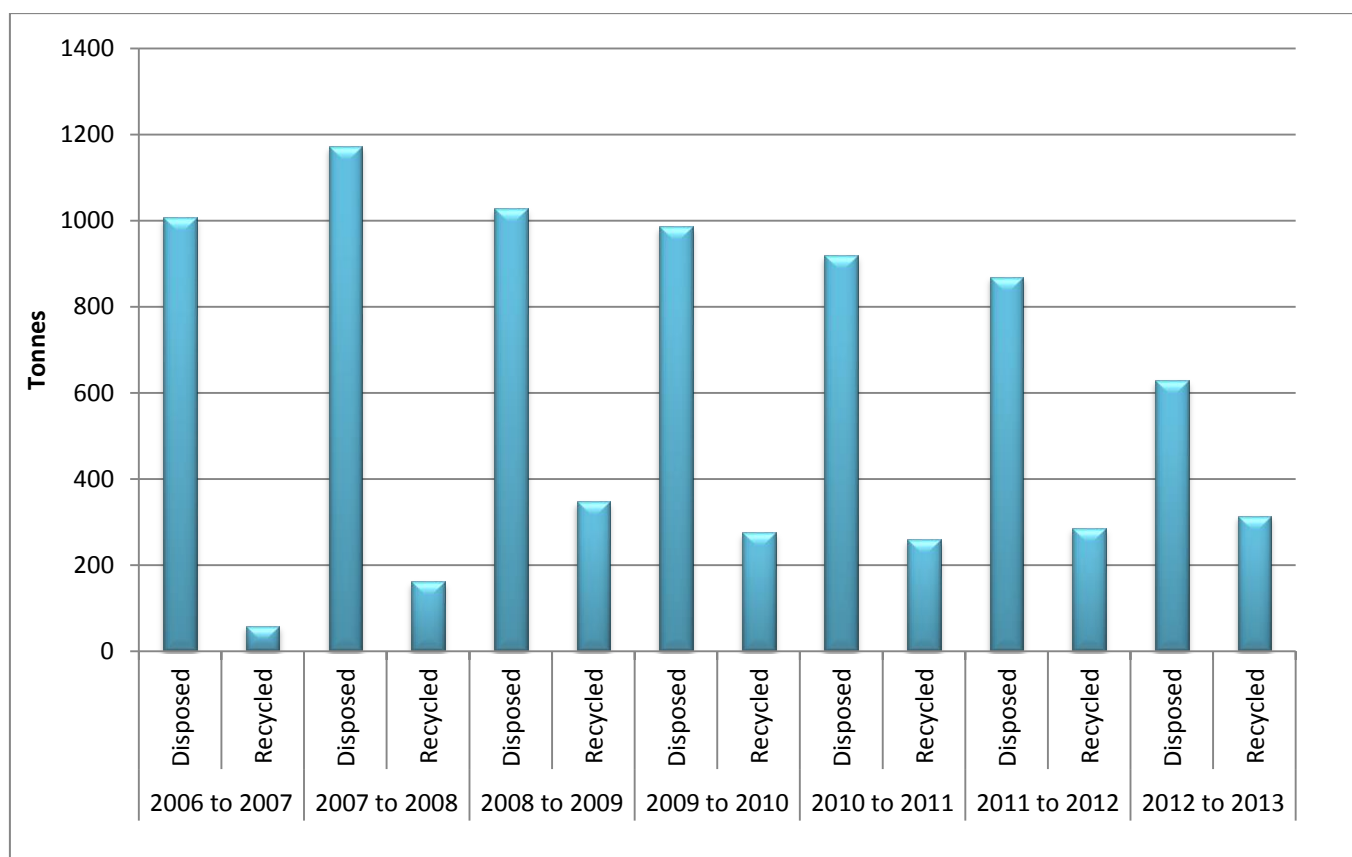
General waste and recycle collected by the main waste contractor

During 2012/13, 628.27 tonnes of general waste and 314.28 tonnes of recycle were collected by the main contractor Total Waste Management. The recycling tonnage is made up of figures for cans, plastic, glass, wood, garden waste, cardboard and non-confidential paper. The graph below shows an encouraging decrease in the amount of waste being disposed year on year.

	2009 to 2010		2010 to 2011		2011 to 2012		2012 to 2013	
	Disposed	Recycled	Disposed	Recycled	Disposed	Recycled	Disposed	Recycled
August	83.843	27.980	63.236	24.695	63.287	19.743	63.861	23.109
September	83.070	23.390	83.037	24.105	72.686	19.950	72.642	36.088
October	99.040	50.20	72.158	14.167	78.987	26.583	76.460	35.330
November	105.820	28.840	83.995	32.815	81.530	27.680	48.712	37.888
December	72.622	21.860	69.860	7.330	60.285	24.835	42.283	9.146
January	67.610	18.950	78.325	23.995	59.840	20.030	41.997	12.523
February	83.938	18.105	81.405	26.215	73.573	15.547	42.614	25.706
March	82.848	18.612	85.423	23.067	78.825	22.715	46.691	26.692
April	69.130	24.950	61.678	21.299	74.805	20.420	40.978	23.042
May	84.640	11.070	100.234	24.049	80.625	11.695	52.353	21.407
June	98.665	20.155	90.483	22.547	79.320	34.200	54.018	29.962
July	54.481	12.310	49.150	14.960	65.746	43.242	45.660	33.390
Total	985.707	276.422	918.984	259.244	869.509	286.64	628.269	314.283

Figures shown are in tonnes

Comparison of waste disposed and recycled by the main contractor



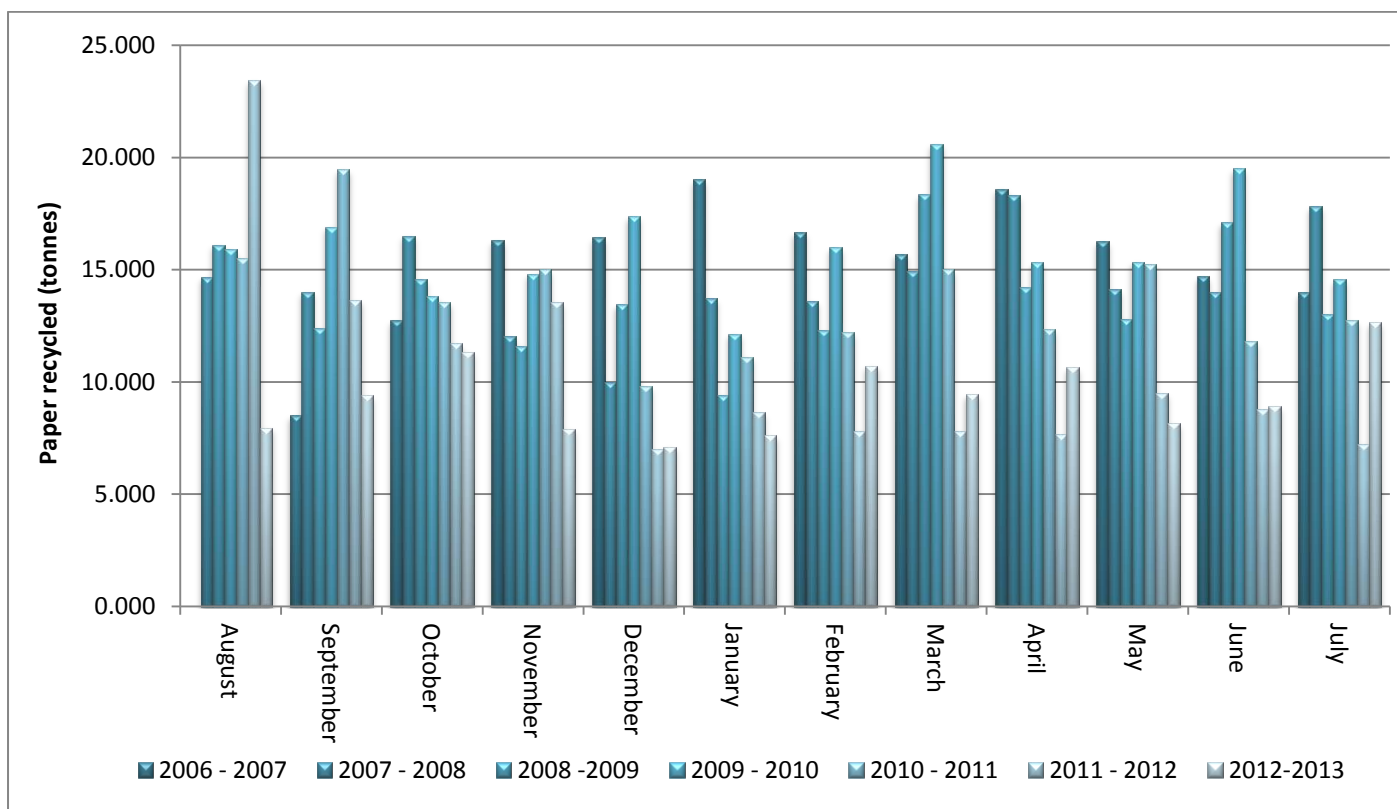
Paper recycling

Confidential paper waste is collected throughout the University in consoles and additional white bags by Shred-it. This year has seen a decline in the volume of paper recycled. It is envisaged that the preceding years may have witnessed numerous clear-outs inflating the baseline recycling rate, and the roll out of duplex printing through MFDs may have made a contribution to the volume of waste paper being produced.

Month	2006 to 2007	2007 to 2008	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013
August	0.000	14.680	16.100	15.890	15.500	23.430	7.935
September	8.515	14.007	12.400	16.890	19.460	13.635	9.39
October	12.720	16.500	14.550	13.820	13.550	11.690	11.33
November	16.296	12.005	11.600	14.800	15.000	13.540	7.896
December	16.425	10.000	13.450	17.370	9.810	6.980	7.09
January	19.022	13.700	9.400	12.125	11.100	8.633	7.621
February	16.659	13.600	12.300	15.979	12.200	7.820	10.715
March	15.700	14.900	18.350	20.600	14.999	7.782	9.425
April	18.600	18.300	14.200	15.300	12.350	7.660	10.63
May	16.250	14.100	12.800	15.350	15.240	9.496	8.15
June	14.700	14.000	17.100	19.500	11.790	8.772	8.91
July	13.972	17.800	13.000	14.550	12.730	7.234	12.634
Total	168.859	173.592	165.25	192.174	163.729	126.672	111.726

Figures shown are in tonnes

Comparison of paper recycled during 2012 – 2013 compared to previous years



Clinical waste

This is the second year that clinical waste data has been provided by our contractors Healthcare Environmental Services and NHS Grampian. The addition of clinical waste data to our overall figure means the recycling rate suffers, due to the fact that this material is either heat treated or disposed of to landfill. Overall 113.46 tonnes of clinical waste arose from University operations in 2012/13, an increase from 108.32 in 11/12.

	IMS	MRF	Medical Physics	Cruickshank	Zoology	Algal Labs	Meston
August	7.576	0.479	0.025	0.242	0.243	0	0
September	7.963	0.421	0	0.240	0.248	0	0
October	12.334	0.321	0	0.298	0.301	0.063	0
November	10.407	0.341	0	0.242	0.243	0	0.100
December	9.926	0.452	0	0.182	0.184	0.063	0
January	10.290	0.276	0	0.240	0.241	0.064	0
February	11.617	0.357	0	0.242	0.249	0.063	0
March	8.197	0.508	0	0.242	0.245	0	0
April	12.769	0.236	0	0.302	0.303	0	0
May	10.207	0.194	0	0.243	0.241	0	0
June	1.923	0.437	0	0.239	0.241	0	0
July	No data	No Data	No Data	0.300	0.301	0.062	0
TOTAL	103.209	3.769	0.025	3.012	3.040	0.315	0.100

Figures shown are in tonnes

Food waste

Food waste is collected from all catering areas and the University Office, where it is uplifted weekly and taken to an in-vessel composting facility near Peterhead. Food waste volumes have seen a considerable increase in this reporting period.

Month	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013
August		0.125	1.425	1.185
September		0.405	1.060	1.675
October		0.960	0.874	2.040
November		0.990	1.340	1.555
December		0.220	1.070	1.075
January		0.730	1.385	1.420
February		1.720	1.385	1.600
March		1.910	1.358	2.005
April		0.925	0.865	2.125
May	0.045	1.755	1.500	2.125
June	0.160	0.955	1.180	1.465
July	0.085	0.756	1.175	1.855
Total	0.290	11.451	14.617	20.125

Figures shown are in tonnes

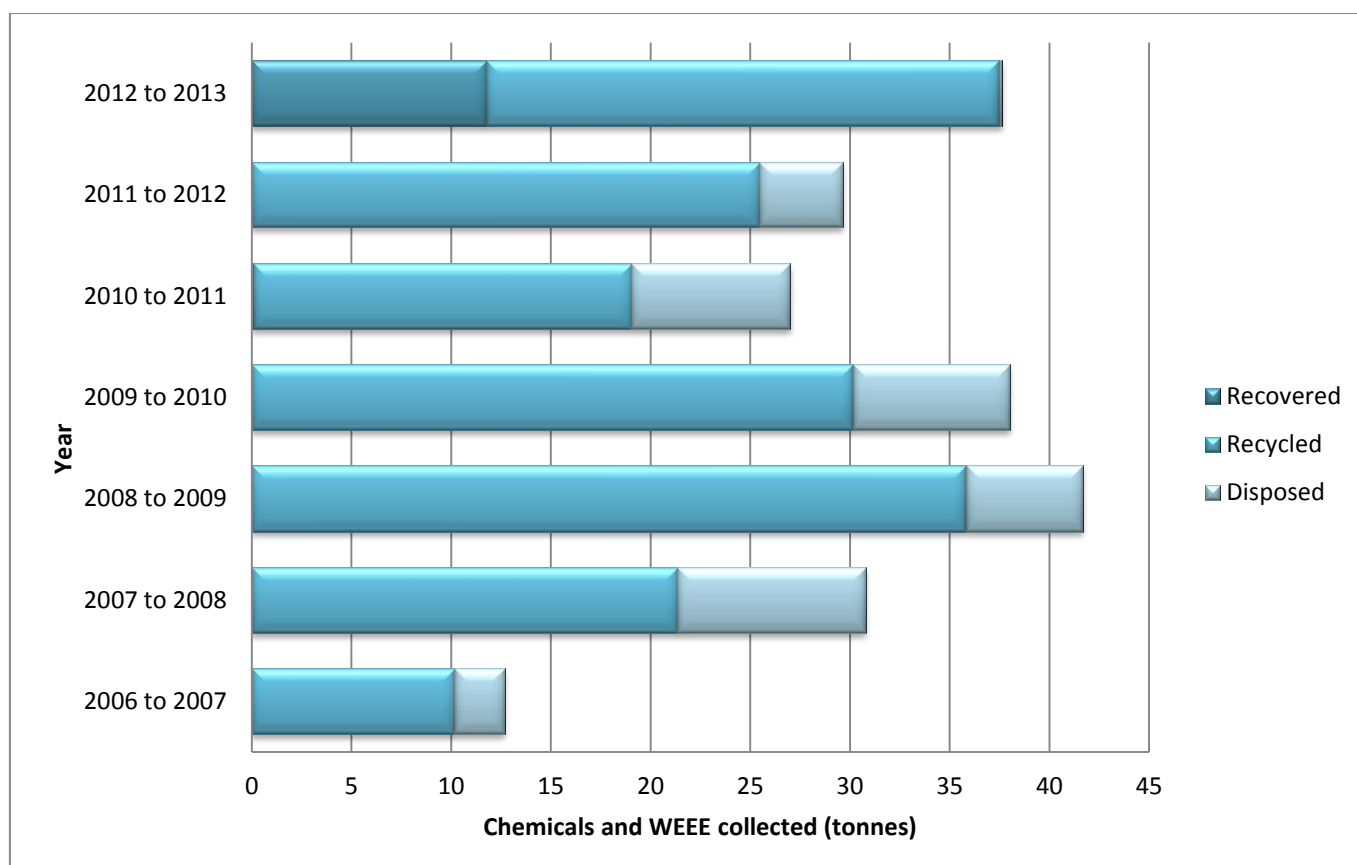
Chemicals and WEEE

Most chemicals and Waste Electricals and Electronic Equipment (WEEE) are collected during the bi-annual uplift, with ad hoc departmental and Campus Services uplifts co-ordinated outwith these periods. For the first time in this period there was a substantial quantity sent for energy recovery which has resulted in a lower disposal figure.

Month	2009 to 2010		2010 to 2011			2011 to 2012			2012 to 2013		
	Recycled	Disposed	Reused	Recycled	Disposed	Reused	Recycled	Disposed	Recovery	Recycle	Disposed
August	0.005	0	0	0	0	0	0	0	0	0.540	0
September	1.300	0.500	0	1.028	0	0	0	0	0	0	0
October	1.200	1.000	0	0.318	0	0	1.455	0	0	0.400	0
November	1.750	0.650	0	0	0	0	0	0	0	0.574	0
December	0	0.015	0	0	0	0	0.920	0	0	0	0
January	3.150	1.800	0	5.039	3.043	0	11.880	0.070	0	0	0
February	8.760	0.540	0	3.479	0	0	5.9200	0	6.780	2.797	0
March	0	0.020	0	0.025	0	0	0	0	0	1.208	0
April	0.500	0	0	0	0	0	0.100	0	0.675	0.280	0.140
May	0	0	0	2.280	0	0	0.720	0	0	3.070	0
June	0	0.800	0	0.718	0	0	0	0	0	0	0
July	13.494	2.530	0.090	6.051	4.930	0	4.453	4.117	4.316	16.841	0.001
Sub-total	30.159	7.855	0.090	18.938	7.973	0	25.448	4.187	11.771	25.710	0.141
Total	38.014		27.005			29.635			37.622		

Figures shown are in tonnes

Comparison of waste chemicals and WEEE produced during 2012 – 2013 compared to previous years



Charitable donation

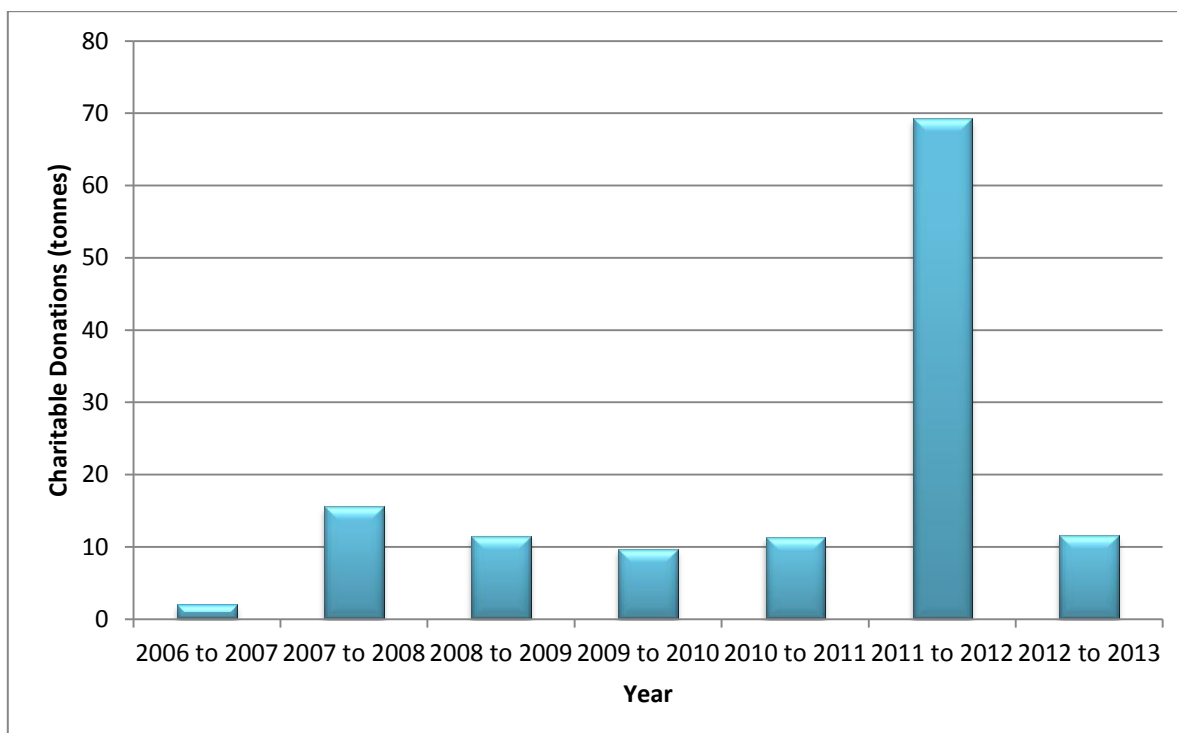
During the reporting period there have been donations of furniture to local charities, computers given to Edinburgh based Reusing IT for use within educational projects both within Scotland and Africa, and various smaller donations associated with refurbishment projects and end of term hall clearances.

Month	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13
August	0.107	2.770	1.488	0.151	3.269	7.463	3.021
September	0.270	0.060	0.050	0.060	0.821	2.259	0.360
October	0.028	0.860	0.057	0.055	0	1.968	0
November	0.166	0.200	0.030	0.360	1.378	0.404	0
December	0	0.850	0.075	0.355	0	55.653	0
January	0	1.410	4.580	0.025	0.010	0	0
February	0.412	3.140	0	0	0.110	0.400	0
March	0	0.960	0.205	0	0.015	0.180	0
April	0	0.020	3.085	0	1.156	0.775	0.600
May	0.974	3.560	0.823	0.684	1.7292	0	0
June	0	1.430	1.091	8.014	2.778	1.788	4.625
July	0.030	0.280	0	0	0	0.213	2.981
Total	1.988	15.5400	11.483	9.704	11.265	71.102	11.587

Figures shown are in tonnes

Comparison of charitable donations during 2012 – 2013 compared to previous years

There was a large decrease in 2012/13 from 2011/12 owing to a large donation of over 55 tonnes in December 2011 from the decommissioning of the Queen Mother Library.



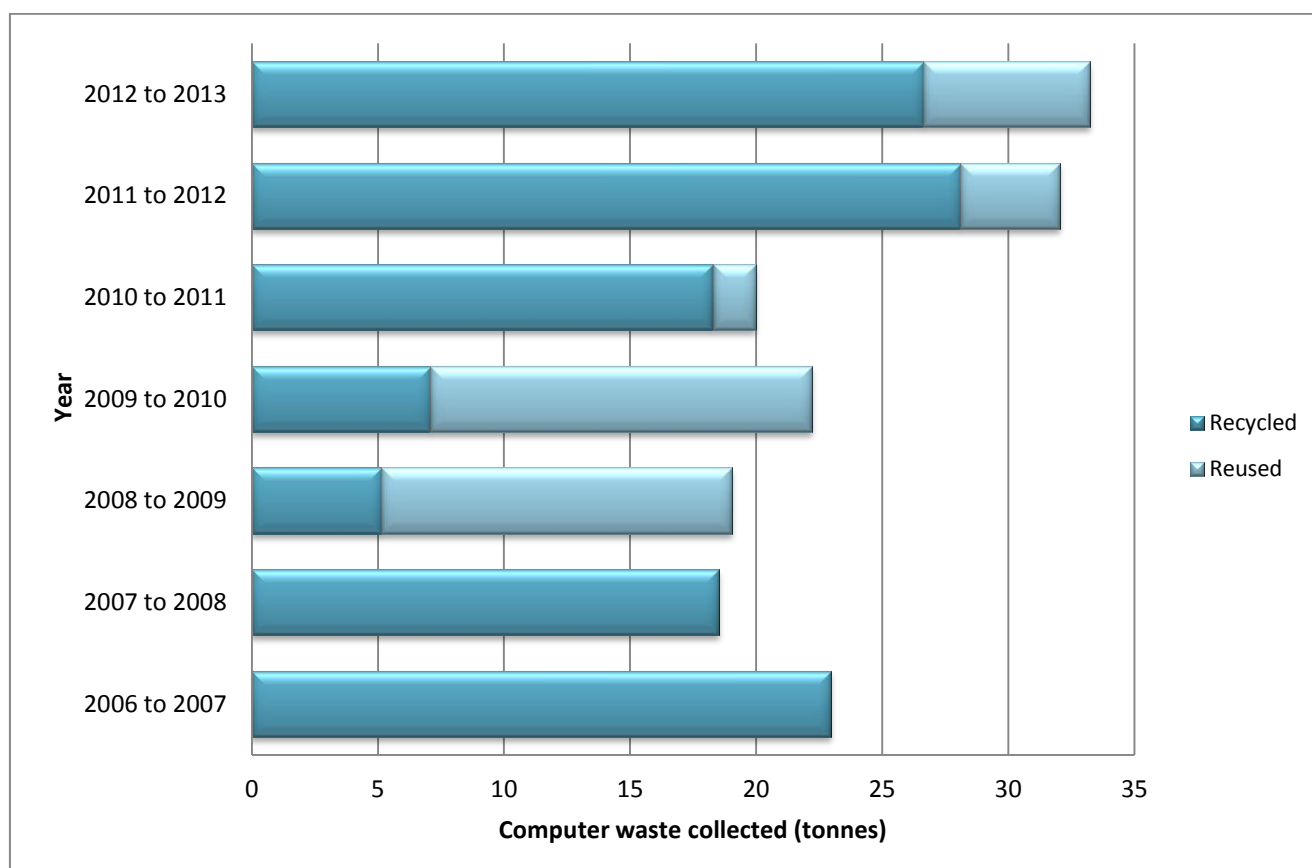
Computing equipment

The 12/13 reporting period has seen a slight increase in the volume of computing equipment disposed of from 11/12, however this is still much higher than the years previous to this. It is unclear why this is the case apart from assuming more replacement programmes than before.

Month	2010 to 2011				2011 to 2012				2012 to 2013			
	Reuse	Recycle	EfW ¹	Dispose	Reuse	Recycle	EfW	Dispose	Reuse	Recycle	EfW	Dispose
August	0.127	0.926	0.006	0.006	0.120	1.722	0.012	0.052	0.269	1.931	0.008	0.033
September	0.029	0.828	0.003	0.008	0.497	1.619	0.007	0.022	0.563	1.676	0.006	0.020
October	0.097	1.332	0.006	0.013	0.371	6.652	0.027	0.050	0.683	3.024	0.012	0.109
November	0.089	1.459	0.006	0.013	0.535	0.441	0.002	0.008	0.403	0.868	0.002	0.016
December	0.000	0.000	0.000	0.000	0.000	5.679	0.023	0.063	0.394	1.632	0.007	0.051
January	0.000	0.796	0.003	0.009	0.000	0.000	0.000	0.000	0.160	1.060	0.004	0.018
February	0.000	2.698	0.020	0.023	0.392	4.519	0.016	0.037	0.823	2.268	0.006	0.132
March	0.504	3.918	0.012	0.064	0.159	1.881	0.006	0.021	0.211	3.759	0.014	0.043
April	0.000	0.978	0.005	0.007	0.270	2.986	0.012	0.032	0.534	0.945	0.003	0.025
May	0.211	1.157	0.004	0.013	0.685	1.179	0.004	0.007	1.020	1.501	0.004	0.022
June	0.276	2.343	0.012	0.023	0.538	0.820	0.004	0.066	0.752	4.891	0.022	0.055
July	0.366	1.850	0.011	0.015	0.355	0.607	0.002	0.009	0.776	3.076	0.009	0.039
Sub-total	1.6990	18.286	0.088	0.195	3.922	28.106	0.113	0.366	6.588	26.632	0.095	0.561
Total	20.268				32.506				33.876			

Figures shown are in tonnes

Comparison of computer waste reused and recycled compared to previous years



¹ EfW represents Energy from Waste

Scrap metal

This year has seen a decrease in the volume of scrap metal recycled from the previous year. This is mainly due to the decommissioning of the Queen Mother Library and the disposal of its metal shelving in 2011/12.

Month	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013
August	7.52	2.50	1.97	2.98
September	5.42	2.30	0.48	3.82
October	4.36	0.98	2.30	0
November	3.18	1.58	1.12	3.20
December	0.42	0	35.24	5.00
January	4.47	1.16	9.20	1.22
February	0	3.46	0.34	0
March	2.18	2.84	1.88	1.84
April	4.82	0.82	2.80	4.40
May	1.52	3.94	1.08	1.60
June	20.42	4.94	4.08	4.04
July	4.54	1.98	4.24	3.50
Total	58.85	26.50	64.73	31.60

Figures shown are in tonnes

Textiles recycling

The volume of textiles this year has been the lowest recorded. This is due partially to the collection bank at Hillhead not being used regularly. Plans are underway to work with the New Hope Trust who provides these banks to maximise their usage.

Month	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013
August	0.900	0.400	0	0.208	0.404
September	0.450	0	0.330	0.497	0
October	1.200	0.825	0.195	0	0
November	0.900	1.050	0	0.157	0
December	0	0.300	0	0.146	0
January	0.450	0	0.315	0.322	0
February	0.525	0.500	0	0	0.260
March	0.7	0.500	0	0	0
April	0.050	0.575	0	0	0
May	0.3	0.200	0.215	0.236	0
June	1.050	1.000	1.490	0.539	0.539
July	0	0	0.484	0	0.220
Total	6.525	5.350	3.029	2.106	1.423

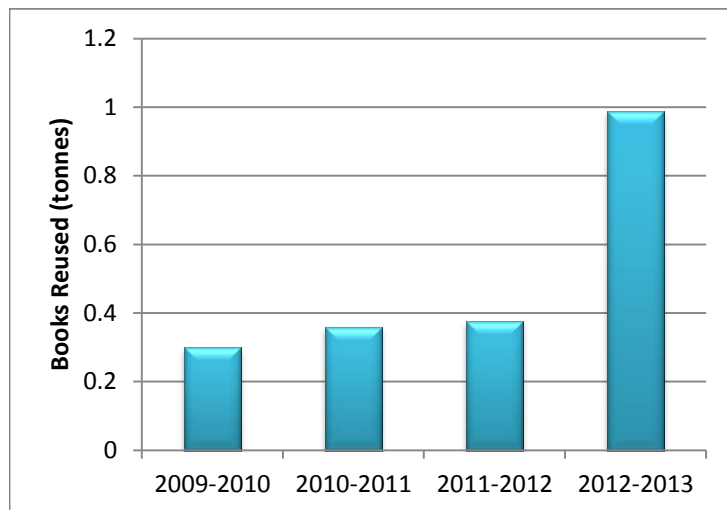
Figures are shown in tonnes

Books

The overall collection of books from the book banks on campus has increased this year to just under a tonne. Despite this, due to increasing operational costs, Oxfam will no longer be providing book banks to the University. Plans are underway to use a new contractor in the future.

Month	09/10	10/11	11/12	12/13
August	0.094	0.064	0.0075	0.518
September	0.03	0.007	0.05	0.070
October	0.02	0.015	0.003	0.018
November	0.031	0	0.045	0.012
December	0.006	0.12	0	0.180
January	0.024	0	0.05	0
February	0.01	0	0.01	0.016
March	0.003	0.004	0.084	0.023
April	0.0073	0.005	0.018	0.006
May	0.07	0.09	0	0.025
June	0.004	0	0.084	0
July	0	0.054	0.024	0.120
Total	0.2993	0.359	0.3755	0.988

Figures shown are in tonnes



Miscellaneous

Waste awareness activities including a programme of events for European Week for Waste Reduction in November 2012 and a paper recycling information session for staff in June 2013 proved popular.