



Waste Data

For period August 2009 to July 2010

Comprehensive waste arisings data covering main campuses and outliers for the financial period.

Waste and Environmental Manager
August 2010

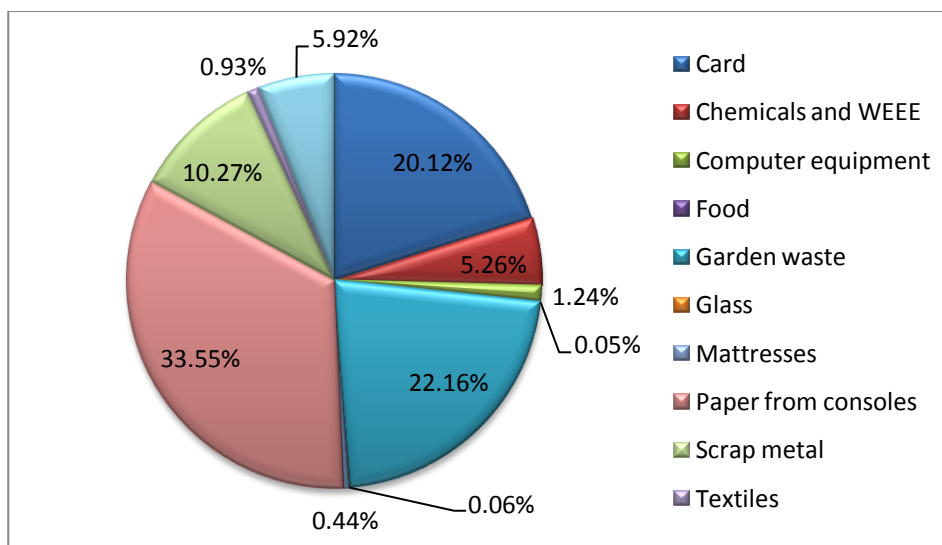
Executive Summary

Over the last financial year (August 2009 to the end of July 2010) the University produced **1591.54 tonnes¹** of waste. The table below illustrates how this figure is compiled. Of this overall figure, **1.58%** of waste was **reused** predominantly through charitable donation, **35.99%** was **recycled** and the remaining **62.43%** was **disposed** of to landfill or through heat treatment technologies. The pie chart beneath the table illustrates in more detail how the recycling figure is segregated into differing waste streams.

Waste stream	Outlet	Tonnage	Accuracy of data
Books	Reused	0.299	Data provided by contractor
Card / paper from stores	Recycling	115.237	Data provided by contractor
Charitable donations	Reuse	9.7037	Estimated
Chemicals and WEEE	Recycling	30.159	Data provided by contractor
Chemicals and WEEE	Disposed	7.855	Data provided by contractor
Computer equipment	Reused	15.136	Data provided by contractor
Computer equipment	Recycled	7.077	Data provided by contractor
Food	Recycled	0.290	Data provided by contractor
Garden waste	Recycled	126.935	Data provided by contractor
Glass	Recycled	0.350	Data provided by contractor
General waste	Disposal	985.707	Data provided by contractor
Mattresses	Recycled	2.528 ²	Data provided by contractor
Paper waste from consoles	Recycled	192.174	Data provided by contractor
Scrap metal	Recycled	58.845	Data provided by contractor
Textiles	Recycled	5.350	Data provided by contractor
Wood	Recycled	33.900	Data provided by contractor
Total waste produced		1591.55	

Figures shown are in tonnes

Pie chart illustrating recycle composition



Target performance comparison against previous years

Target (shown in parenthesis below)	Performance for August 2009 to July 2010	Waste arisings	Performance for August 2008 to July 2009	Waste arisings	Performance for August 2007 to July 2008	Waste arisings	Performance for August 2006 to July 2007	Waste arisings
Reuse (2%)	1.58%	25.139	1.39%	25.35	1%	15.54	0%	1.99
Recycle (20%)	35.99%	572.845	41.95%	766.58	36%	694.69	18%	280.7
Waste disposal	62.43%	993.562	56.66%	1035.22	63%	1228.8	82%	1256.91

Figures shown are in tonnes

¹ This figures does not include wastes arisings from clinical and sanitary waste collections; those produced through construction projects; the glass, plastic and cans recycled through the local authority recycling points; or any food waste that gets deposited to sewer. It also does not include any waste arisings associated with the Rowett Institute.

² One off collection from Hillhead following end of term

Waste stream information and cost trends

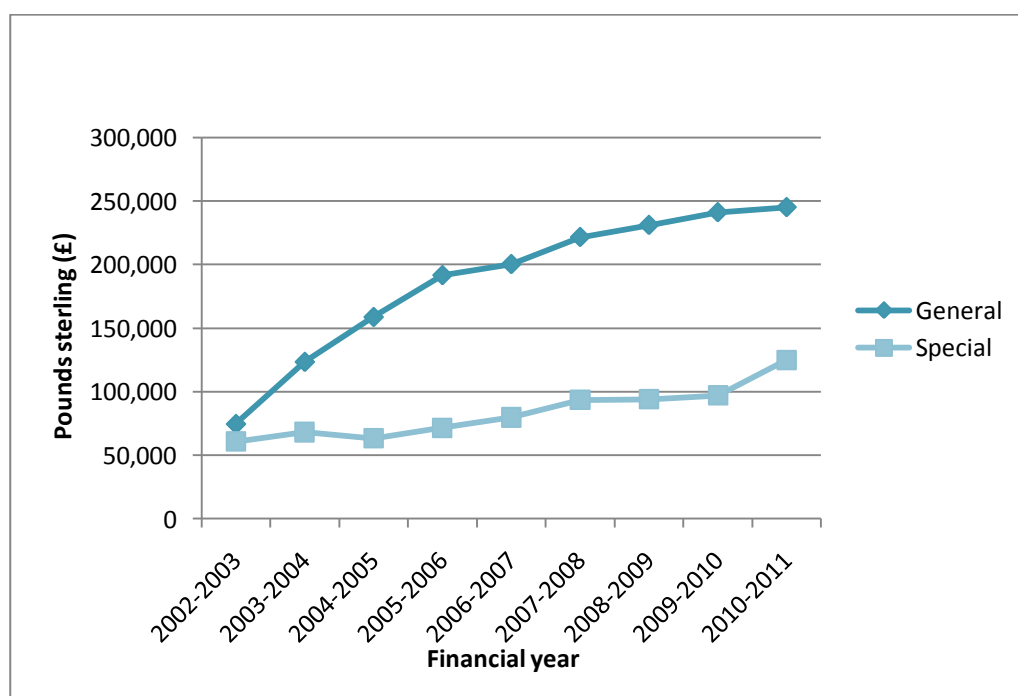
Contractors used on site

The table below illustrates the contractors used to reuse, dispose, treat and recycle wastes produced as part of University operations during the last financial year.

Waste stream	Waste contractor
Books	Oxfam
Cardboard recycling	Total Waste Management Alliance
Chemicals and WEEE waste	Veolia Environmental Services
Clinical waste collections at Foresterhill	NHS Grampian
Clinical waste collections at Old Aberdeen	Healthcare Environmental Services
Computer equipment for reuse only	Reusing IT
Computer equipment for reuse and recycling	Computer Recycling Technologies
Confidential and non-confidential paper recycling	Shred-it (North East) Ltd
Furniture	New Hope Trust / Instant Neighbour / Creative Waste Exchange
General waste disposal	Total Waste Management Alliance
Glass bottles	Aberdeen City Council ³
Plastic bottles	Aberdeen City Council ⁴
Recyclate through recycling points	Aberdeen City Council
Sanitary waste collections	Cannon Hygiene
Scrap metal	Panda Rosa
Textiles	Nathans Wastesavers

Cost trends

The chart below illustrates budget allocation for waste management since the financial period 2002 – 2003. It demonstrates increasing costs associated with waste management. Some of the rise indicated is due to increased collections as the University develops new work which produces waste or a new building becomes operational. This trend line is unlikely to see a downturn as the landfill tax escalator is applied annually and rises in transportation and labour costs continue.



³ There is no collection for glass bottles. Through agreement with Aberdeen City Council, Campus Services staff can decant glass bottles into the recycling points at Crombie and Hillhead.

⁴ There is no collection for plastic bottles. Through agreement with Aberdeen City Council, Campus Services staff can decant plastic bottles into the recycling points at Crombie and Hillhead.

Charitable donation

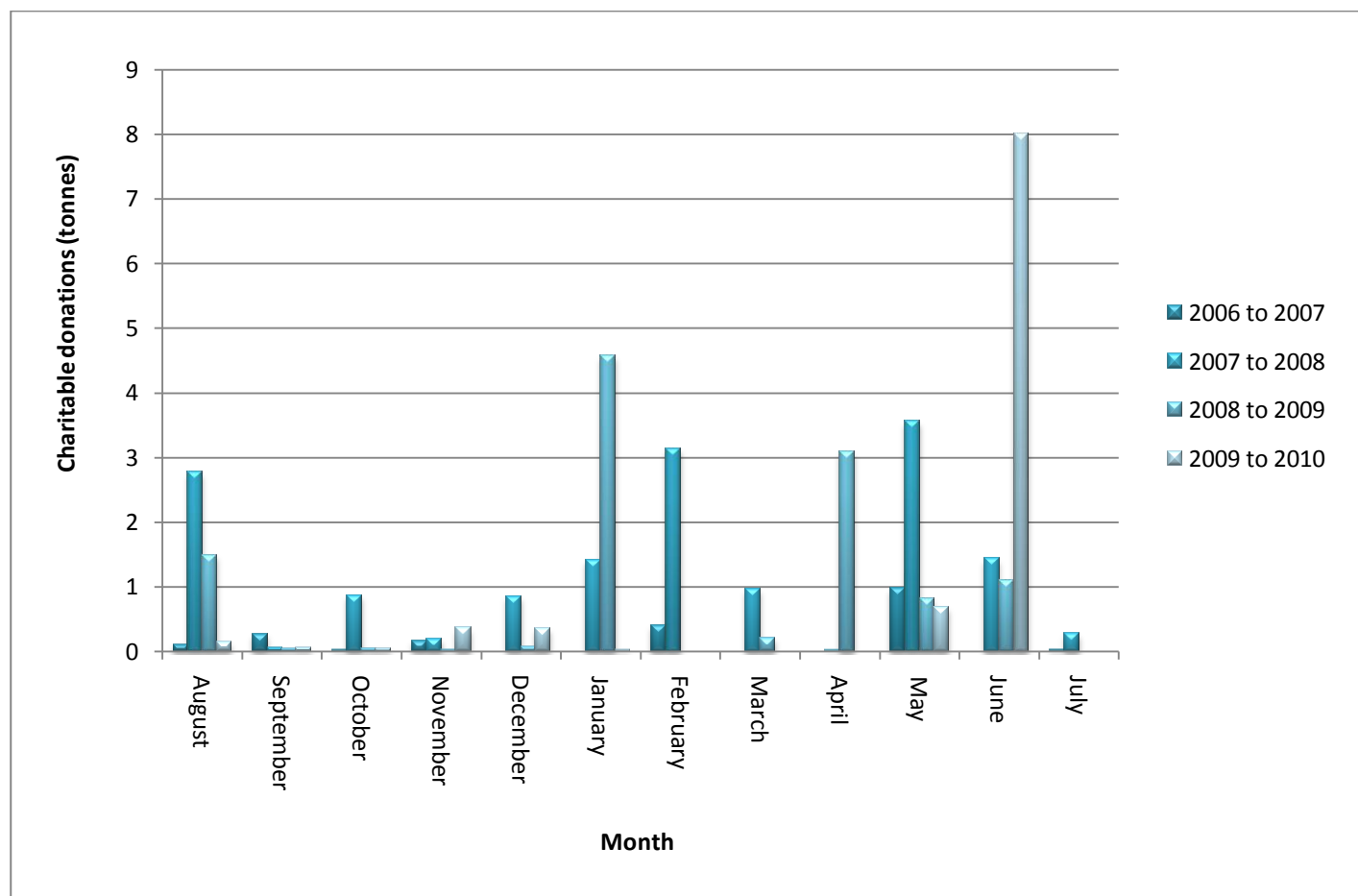
For financial period 2009 – 2010 charitable donations have dropped to the second lowest value over the past four years, with only 9.7037 tonnes going for reuse within the community. The peak period for this last financial year was during June, when mattresses and curtains were collected from Hillhead halls by the New Hope Trust, and the upgrade of classroom computers enabled a donation to Reusing IT.

Other items donated comprise mainly of furniture and metal shelving. The Creative Waste Exchange who has in the past accepted items has limited the stock it collects and this has resulted in fewer items going for charitable reuse external to the University.

Month	Period 2006 to 2007	Period 2007 to 2008	Period 2008 to 2009	Period 2009 to 2010
August	0.1068	2.77	1.4876	0.151
September	0.2702	0.06	0.05	0.06
October	0.0284	0.86	0.057	0.055
November	0.1656	0.2	0.03	0.36
December	0	0.85	0.075	0.355
January	0	1.41	4.58	0.025
February	0.4124	3.14	0	0
March	0	0.96	0.205	0
April	0	0.02	3.085	0
May	0.9742	3.56	0.8225	0.684
June	0	1.43	1.091	8.0137
July	0.03	0.28	0	0
Total	1.9876	15.54	11.4831	9.7037

Figures shown are in tonnes

Comparison of charitable donations during 2009 – 2010 compared to previous years



Chemicals and WEEE

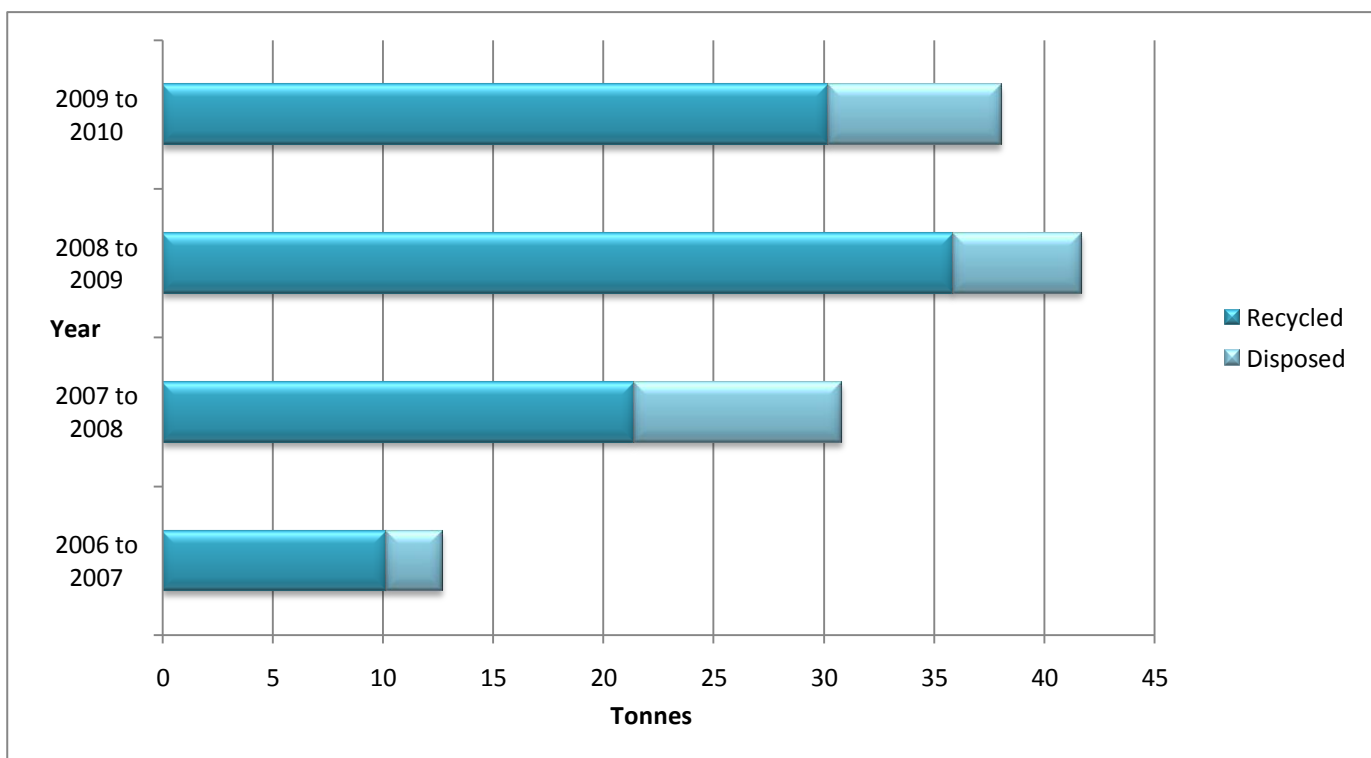
The highest months for chemical and WEEE production coincide with the bi-annual chemical and WEEE collections scheduled for January and June / July time. Throughout the remainder of the year there are ad hoc collections of batteries from Bedford Road, oily rags from Uniprint and small quantities of WEEE from Campus Services operations.

The majority of wastes produced during these collections is recycled at an offsite waste treatment facility into new oil or chemical products, or broken down into constituent parts for material recovery.

Month	Period 2006 to 2007 ⁵		Period 2007 to 2008		Period 2008 to 2009		Period 2009 to 2010	
	Recycled	Disposed	Recycled	Disposed	Recycled	Disposed	Recycled	Disposed
August	0	0	0.5	0.015	0	0.02	0.005	0
September	0	0	0.12	0	3.72	0.345	1.3	0.5
October	0	0	3.8	0.31	0	0.02	1.2	1
November	0	0	0	0	1.1	0.02	1.75	0.65
December	0	0	0.25	0.07	2.48	0	0	0.015
January	0	0	8.295	1.945	7.566	0.9411	3.15	1.8
February	0	0	0	0.01	4.86	2.13	8.76	0.54
March	0	0	0	0.07	0	0	0	0.02
April	0	0	1.86	0.02	1.185	0	0.5	0
May	0	0	0.55	0	0	0	0	0
June	0.12	0.025	5.99	6.98	0	0.015	0	0.8
July	10.04	2.49	0	0	14.911	2.364	13.494	2.53
Sub-total	10.16	2.515	21.365	9.42	35.822	5.8551	30.159	7.855
Total	12.675		30.785		41.677		38.014	

Figures shown are in tonnes

Comparison of waste chemicals and WEEE produced during 2009 – 2010 compared to previous years



⁵ Collection of waste arisings data only commenced in June 2007, therefore the returns before this have no data recorded

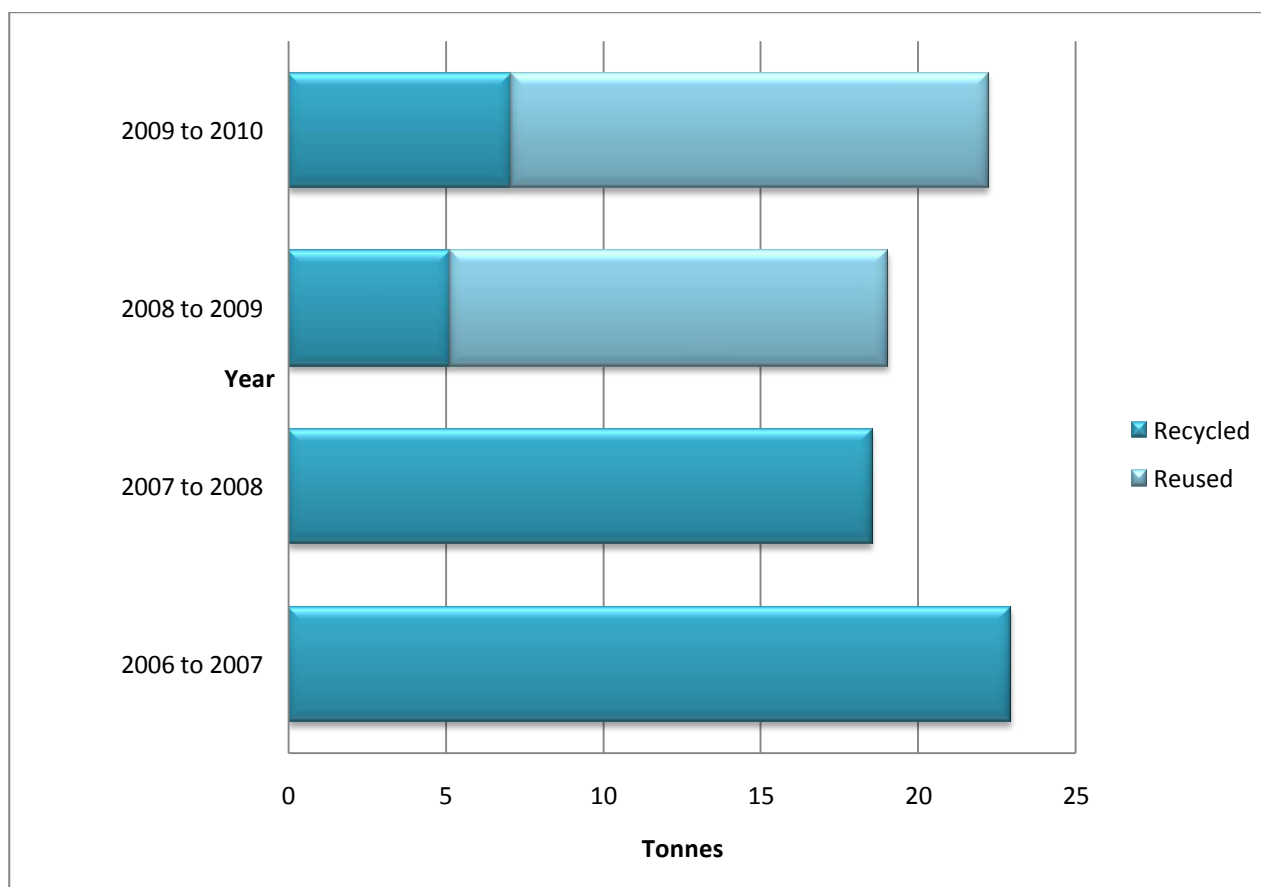
Computing equipment

The amount of computing equipment disposed of has remained relatively static over the reporting period, with the amounts sent for reuse being nearly double that sent for recycling. Peaks coincide loosely with classroom replacements. It is important to note that this data does not include the equipment donated to Reusing IT; this is reflected in the charitable donations waste arisings figures.

Month	Period 2006 to 2007 ⁶	Period 2007 to 2008	Period 2008 to 2009		Period 2009 to 2010	
	Recycled	Recycled	Reused	Recycled	Reused	Recycled
August	1.485	1.241	3.624	0.389	0.520	0.083
September	2.498	1.083	0.989	0.225	1.952	0.054
October	1.146	2.508	0.757	0.211	0.000	0.000
November	2.493	2.4622	3.442	0.475	0.050	0.815
December	2.762	2.4385	0.000	0.000	1.530	0.160
January	2.138	0.999	0.000	0.000	3.115	0.628
February	0	0	0.659	0.143	2.289	1.090
March	1.259	2.197	0.270	0.647	1.390	0.336
April	2.844	1.319	1.504	2.375	0.000	0.000
May	1.135	0.918	0.494	0.199	1.420	1.631
June	2.839	2.132	2.132	0.494	2.065	2.045
July	2.342	1.233	0.000	0.000	0.805	0.235
Sub-total			13.870	5.158	15.136	7.077
Total	22.941	18.5307	19.028		22.213	

Figures shown are in tonnes

Comparison of computer waste reused / recycled during 2009 – 2010 compared to previous years



⁶ During 2006 to 2008 the contractor used only offered recycling as an option, therefore no data for reuse

General waste and recycle collected by the main waste contractor

The amount of general waste disposed of to landfill during the last financial period was 985.707 tonnes. The amount of waste recycled through the main contractor during this period was 276.422 tonnes. The table below illustrates what wastes are produced where on campus relative to main contractor collections.

Please note that the table below only represents data from the main contractor and should not be seen as a complete figure for waste production from each of the locations.

Location	Waste stream				
	Glass	Wood	Cardboard	Garden waste	General waste
Balgownie	0.000	2.940	0.000	0.000	7.003
Bedford Road	0.000	12.800	0.520	126.935	60.665
Butchart	0.000	0.000	0.000	0.000	3.481
Chaplaincy	0.000	0.000	0.000	0.000	0.975
College Bounds	0.000	0.000	0.000	0.000	1.562
Cornhill	0.000	0.000	0.260	0.000	0.760
Crombie / Zeste	0.000	0.000	2.480	0.000	31.453
Crombie RP	0.000	0.000	0.000	0.000	4.531
Dunbar	0.000	0.000	0.160	0.000	1.778
Elphinstone Hall	0.030	0.000	0.020	0.000	16.136
Elphinstone Road halls	0.000	0.000	0.000	0.000	18.956
Fraser Noble	0.000	1.740	0.332	0.000	28.140
Hillhead Centre	0.000	0.000	0.000	0.000	2.214
Hillhead Halls	0.000	11.840	12.380	0.000	276.817
Hub	0.000	0.000	25.680	0.000	143.200
IMS	0.000	0.000	25.230	0.000	87.340
Johnston	0.000	0.000	12.900	0.000	50.100
KCCC	0.000	0.000	0.335	0.000	9.014
Kings Hall	0.000	0.000	0.000	0.000	6.660
Kings Pavillion	0.000	0.000	0.000	0.000	2.280
MacRobert skips	0.000	0.000	14.260	0.000	26.760
MacRobert wheelie bin	0.000	0.000	0.000	0.000	3.525
Marischal	0.040	0.000	0.000	0.000	2.261
Medical Physics	0.080	0.000	0.000	0.000	2.880
MRF	0.000	0.000	0.420	0.000	60.340
Meston	0.000	1.100	3.025	0.000	27.320
Newburgh	0.200	3.480	1.140	0.000	7.280
Polwarth	0.000	0.000	0.000	0.000	0.520
QML	0.000	0.000	8.440	0.000	17.560
St Machar	0.000	0.000	0.840	0.000	3.673
St Marys	0.000	0.000	0.000	0.000	1.449
Taylor	0.000	0.000	2.495	0.000	41.085
University Office	0.000	0.000	1.500	0.000	10.909
Zoology	0.000	0.000	2.820	0.000	27.080
Total	0.350	33.900	115.237	126.935	985.707

Paper recycling

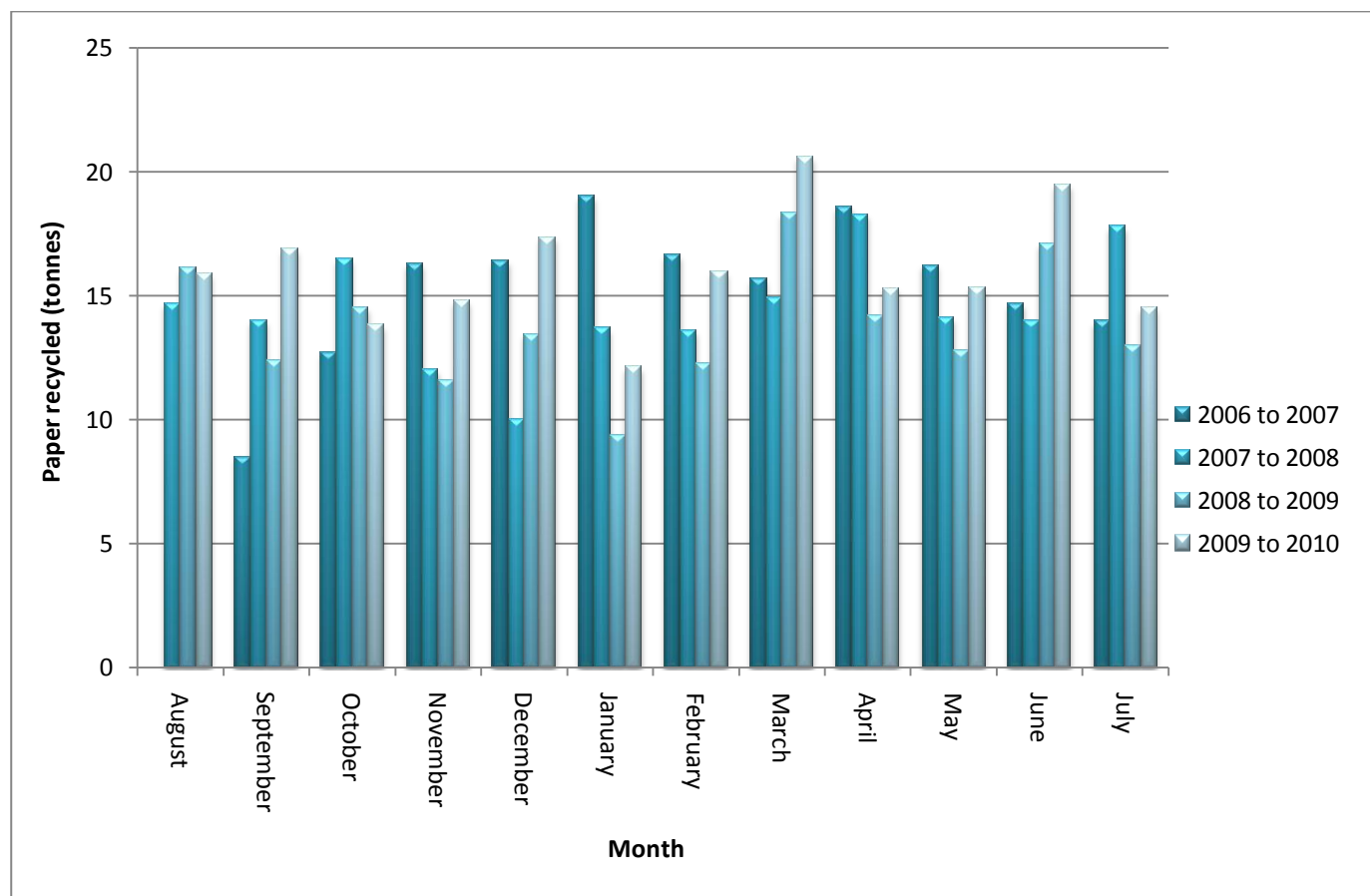
For financial period 2009 – 2010, Shred-it collected the largest amount of paper for recycling to date, some 192.174 tonnes. This averages at just over 16 tonnes of paper per month. During this period paper waste production peaked in March and June, and ebbed in January.

Shred-it will continue to operate this service at the University for at least the next three years following successful contract award.

Month	Period 2006 to 2007	Period 2007 to 2008	Period 2008 to 2009	Period 2009 to 2010
August	0	14.68	16.1	15.89
September	8.515	14.007	12.4	16.89
October	12.72	16.5	14.55	13.82
November	16.296	12.005	11.6	14.8
December	16.425	10	13.45	17.37
January	19.022	13.7	9.4	12.125
February	16.659	13.6	12.3	15.979
March	15.7	14.9	18.35	20.6
April	18.6	18.3	14.2	15.3
May	16.25	14.1	12.8	15.35
June	14.7	14	17.1	19.5
July	13.972	17.8	13	14.55
Total	168.859	173.592	165.25	192.174

Figures shown are in tonnes

Comparison of paper recycled during 2009 – 2010 compared to previous years



Scrap metal

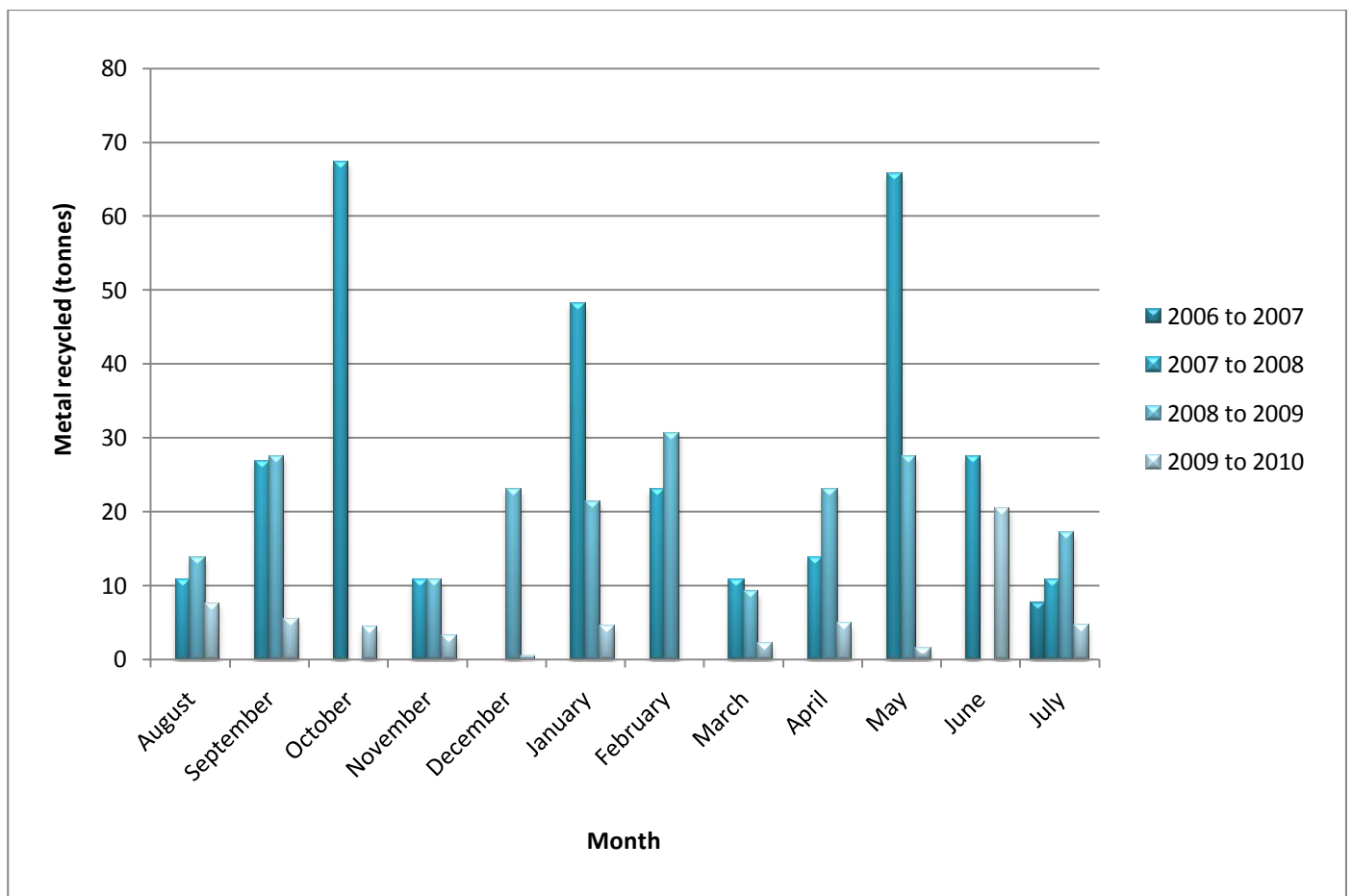
It would appear that scrap metal recycling has greatly reduced. However this is not the case. More accurate waste arisings data is now being supplied by the contractor as opposed to working out estimates based on skip volume. As seen, this can be somewhat inaccurate in calculating waste arisings.

This year scrap metal was mainly produced through activities at Bedford Road and the Rowett Institute.

Month	Period 2006 to 2007	Period 2007 to 2008	Period 2008 to 2009	Period 2009 to 2010
August	0	10.700	13.760	7.520
September	0	26.760	27.524	5.420
October	0	67.280	0.000	4.360
November	0	10.700	10.704	3.180
December	0	0.000	22.937	0.420
January	0	48.170	21.408	4.465
February	0	22.940	30.582	0
March	0	10.700	9.175	2.180
April	0	13.760	22.937	4.820
May	0	65.750	27.524	1.520
June	0	27.520	0.000	20.42
July	7.65	10.700	17.050	4.54
Total	7.65	314.980	203.599	58.845

Figures shown are in tonnes

Comparison of scrap metal recycled during 2009 – 2010 compared to previous years



Textiles recycling

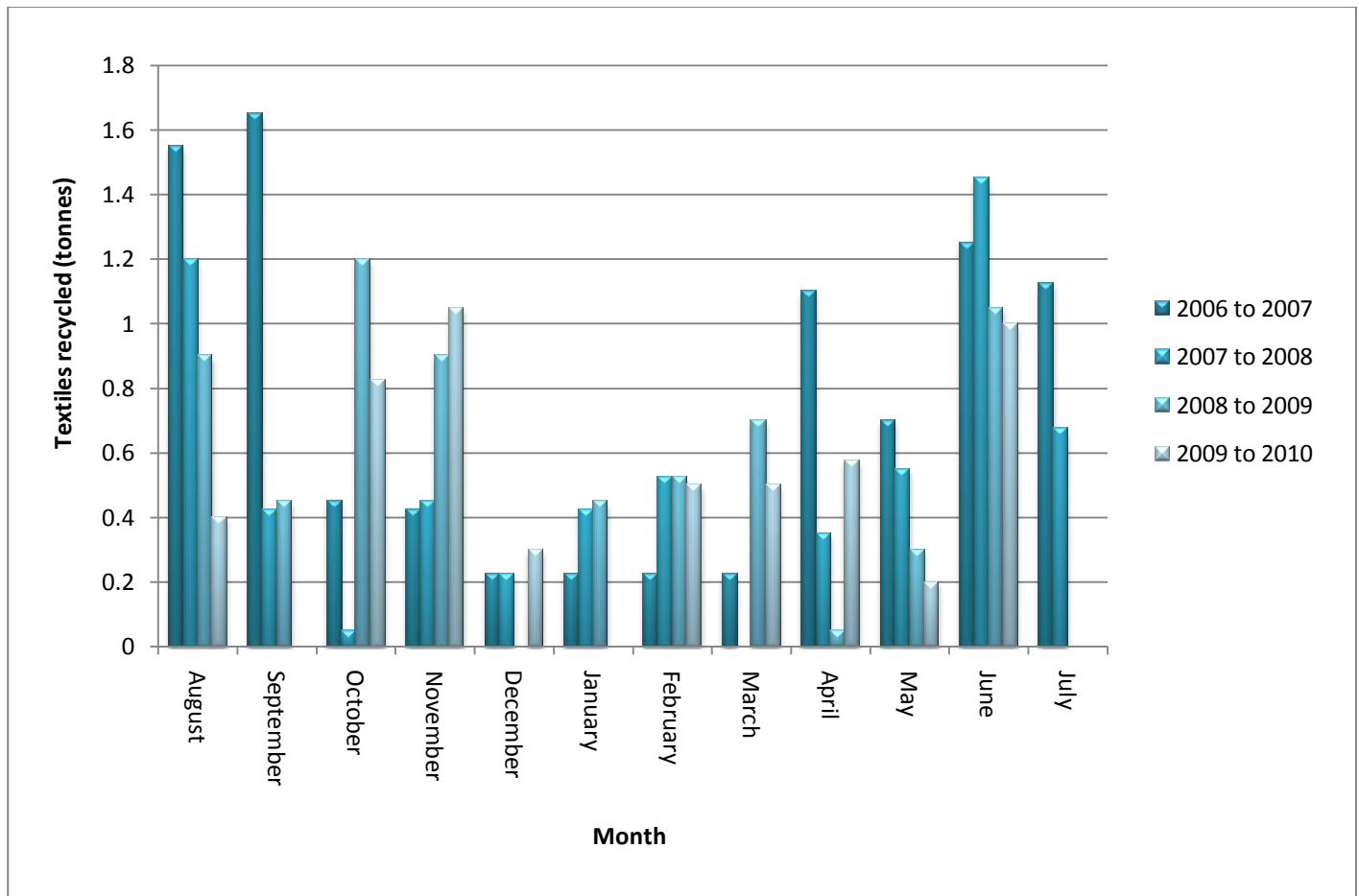
This table illustrates that the utilisation of the textiles recycling banks has seen a decline in recent years. Waste arisings peaked this past year in November and June.

Textiles are either reused or recycled into new products.

Month	Period 2006 to 2007	Period 2007 to 2008	Period 2008 to 2009	Period 2009 to 2010
August	1.55	1.2	0.9	0.4
September	1.65	0.425	0.45	0
October	0.45	0.05	1.2	0.825
November	0.425	0.45	0.9	1.05
December	0.225	0.225	0	0.3
January	0.225	0.425	0.45	0
February	0.225	0.525	0.525	0.5
March	0.225	0	0.7	0.5
April	1.1	0.35	0.05	0.575
May	0.7	0.55	0.3	0.2
June	1.25	1.45	1.05	1
July	1.125	0.675	0	0
Total	9.15	6.325	6.525	5.35

Figures are shown in tonnes

Comparison of textiles recycled during 2009 – 2010 compared to previous years

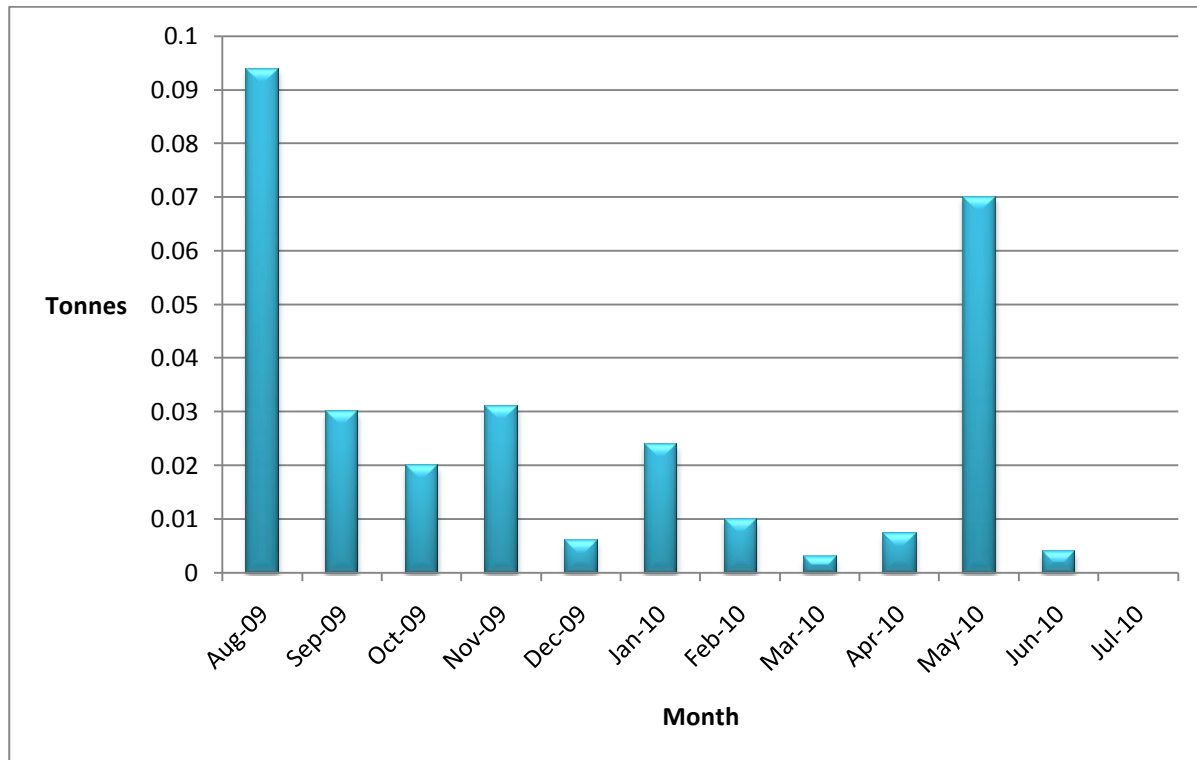


Others

Books

Waste arising from Oxfam book banks and ad hoc collections only started in August 2009. This year is the first financial period where data is reported on this waste stream.

Book bank collections during financial period 2009 - 2010



Food waste

Food waste collection is presently on trial at the Suttie Centre. Collections commenced in May 2010 with the trial continuing until the end of August 2010. To date, collections have been extremely successful. As such it is hoped to roll this collection to other facilities across campus. Presently the only data we have on this collection is illustrated in the table below.

Month	Waste arisings
May	0.045
June	0.160
July	0.085

Mattresses

The University donates most unwanted mattresses to charity for reuse, any residual that are not fit for purpose are recycled. This collection normally only happens once a year after end of term. This financial year 161 mattresses were recycled.