Waste from all sources – Summary data 2015

This release provides a summary of Scottish waste generated and managed in calendar year 2015. The data in this release represent Waste From All Sources (WFAS). Further information including definition of terms is included in the methodology and glossary.

Key points

WFAS– 2015 calendar year[1]

- The total quantity of WFAS generated in Scotland in 2015 was 11.63 million tonnes, an increase of 13.8% since 2014. This follows a 9.9% decrease the previous year.
- The amount of waste generated varies between 10% and 20% year on year, primarily due to changes in the amount of Construction and demolition (C&D) waste generated. This variation in C&D waste is sensitive to the number of large infrastructure projects in any given year.
- The quantity of Household and similar wastes generated decreased in 2015, reducing by 1.9% (38,097 tonnes) from 2014. This decrease was accompanied by an increase in the generation of source separated materials such as Animal and mixed food waste (increase of 40,177 tonnes, 16.5%) and Vegetal wastes (increase of 143,531 tonnes, 7.9%).
- The quantity of separately collected Paper and cardboard waste generated decreased in 2015 by 21.5% (31,476 tonnes) from 2014, and by 39.3% (74,648 tonnes) from 2011, likely to reflect a longer term move away from print media.
- In 2015, the estimated WFAS recycled was 6.26 million tonnes, which is 823,666 million tonnes (15.1%) more waste recycled than in 2014. This followed a 666,075 million tonne (10.8%) decrease the previous year. The bulk of the difference is due to an increase in recycling of C&D wastes such as Soils. Excluding Soils, there was an increase in recycling of 433,909 tonnes (6.9%) from 2014.
- The quantity of Animal and mixed food waste recycled in 2015 again increased in 2015 to 188,143 tonnes, 4.8% (8,685 tonnes) greater than the 184,878 tonnes recycled in 2014.
- Scottish waste sent for energy recovery in 2015 was 475,808 tonnes, a decrease of 24,155 tonnes (4.8%) from 2014.
- Scottish waste disposed by landfill or incineration without energy recovery in 2015 was 4.3 million tonnes, an increase of 123,184 tonnes (2.9%) from 2014.
- The percentage of Scottish waste landfilled in 2015 was 37.4% of all waste managed, a decrease of 105,467 tonnes (2.6%) from 2014. This is the lowest landfill rate recorded within the available dataset (2011 – 2015).

Data for WFAS generated and managed by waste type for 2011 - 2015 and the trends for WFAS generated, recycled and managed is available from WFAS Discover Data tool on Scotland's Environment Website.

Annual WFAS summary data tables are also available to download in Excel format on SEPA's web site.

Enquiries on this publication to: Contact SEPA Communications Department: 01786 452546.

[1] Revisions to historical data updated since the previous publication are detailed in the Revisions Policy section on page 22 of this document.

Table 1. Waste from all sources - Summary data 2015

Waste type [2]	Generated (tonnes)	Recycled (tonnes)	Recovered (tonnes)	Disposed (tonnes) [1]
Spent solvents	65,420	-	565	77
Acid, alkaline or saline wastes	5,568	8	-	1
Used oils	49,171	-	-	37
Chemical wastes	107,404	3	1,378	2,083
Industrial effluent sludges	73,142	13,076	12,985	9,460
Sludges and liquid wastes from waste treatment	901	54,852	1,476	900
Health care and biological wastes	29,292	-	-	8,746
Metallic wastes, ferrous	322,479	543,323	-	25
Metallic wastes, non-ferrous	25,227	133,706	15	3,857
Metallic wastes, mixed ferrous and non-ferrous	191,891	45,555	-	2
Glass wastes	143,239	242,087	-	17,786
Paper and cardboard wastes	115,227	185,779	-	601
Rubber wastes	30,723	45	8,594	45
Plastic wastes	36,048	38,248	-	1,997
Wood wastes	278,084	134,723	233,616	987
Textile wastes	29,253	6	-	17,863
Waste containing PCB	123	7	-	-
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	77,401	72,520	37	2,996
Discarded vehicles	46,615	3,408	-	-
Batteries and accumulators wastes	6,831	7,130	-	-
Animal and mixed food waste	283,622	203,101	-	10,993
Vegetal wastes	913,624	730,286	5,298	4,052
Animal faeces, urine and manure	119,466	21,149	97,731	148
Household and similar wastes	1,982,396	9,456	9,749	1,270,273
Mixed and undifferentiated materials	428,161	13,429	-	53,603
Sorting residues	5,650	6,257	75,949	972,489
Common sludges	128,619	328,751	28,417	9,617
Mineral waste from construction and demolition	1,392,265	883,154	-	60,980
Other mineral wastes	154,366	75,612	-	49,364
Combustion wastes	416,288	1,433	-	333,996
Soils	4,061,490	2,390,926	-	1,237,837
Dredging spoils	40,270	38,313	-	1,536
Mineral wastes from waste treatment and stabilised wastes	70,776	84,083	-	233,680
Total	**11,631,032**	**6,260,427**	**475,808**	**4,306,030**

1. Waste disposed includes waste incineration by disposal and waste landfilled. Waste recovered includes waste incinerated by recovery and waste co-incinerated
2. The amount of waste recycled may be larger than the amount of waste generated because waste may be generated as mixed waste, for example as 'household and similar wastes' or 'Metallic wastes, mixed ferrous and non-ferrous', and at a subsequent stage it is treated to separate it into its component parts before being recycled. Similarly the amount of waste managed may be less than the amount of waste generated.

Table 2. Key figures to support targets specified in Scottish waste policies*

Indicator	Year	Performance	Target / Target year
1. Reduce biodegradable municipal waste to be sent to landfill	2005	2.16 million tonnes	**< 2.7 million tonnes / 2010** **< 1.8 million tonnes / 2013** **< 1.26 million tonnes / 2020**
	2006	2.03 million tonnes	
	2007	1.97 million tonnes	
	2008	1.78 million tonnes	
	2009	1.57 million tonnes	
	2010	1.48 million tonnes	
	2011	1.36 million tonnes	
	2012	1.29 million tonnes	
	2013	1.18 million tonnes	
	2014	1.12 million tonnes	
	2015	1.08 million tonnes	
2. Recycling and preparing for reuse of construction and demolition waste‡	2011	85.6%	**70% / 2020**
	2012	86.8%	
	2013	82.3%	
	2014	87.3%	
	2015	82.8%	
3. Recycling/composting and preparing for re-use of waste from all sources§	*2011 (old method)*	52.9%	**70% / 2025**
	2012 (old method)	50.4%	
	2013 (old method)	57.8%	
	2014 (old method)	54.0%	
	2015 (old method)	57.0%	
	2014 (new method)	53.7%	
	2015 (new method)	56.7%	
4. Percentage of all waste sent to landfill§	2011	43.1%	**< 5% / 2025**
	2012	45.0%	
	2013	38.0%	
	2014	39.8%	
	2015	37.4%	
5. Reduce waste generated in Scotland	2012	83.2%	**<93% of 2011 baseline / 2017** **<85% of 2011 baseline / 2025**
	2013	94.7%	
	2014	85.4%	
	2015	97.2%	

* Making Things Last - A Circular Economy Strategy for Scotland (2016).
Figures for the carbon metric impacts of waste, targets and performance are published by Zero Waste Scotland at

www.zerowastescotland.org.uk/content/scotland%E2%80%99s-carbon-metric-impact

‡ C&D recycling rates and household waste recycled by weight of waste materials are from data provided to Europe for reporting under the Waste Framework Directive. C&D recycling excludes hazardous waste and soil and stone recycled.

§ The methodology used to calculate recycling tonnages changed in 2011. Years reported are those available that have been compiled using the current methodology.

Data and Trends

Waste Generated

- The total quantity of waste generated in Scotland in 2015 was 11.63 million tonnes, an increase of 1.41 million tonnes (13.8%) since 2014.
- The change in waste generated year on year since 2011 varied considerably, with a decrease of 2.01 million tonnes (16.8%) from 2011 to 2012, increase of 1.38 million tonnes (13.9%) from 2012 to 2013, decrease of 1.12 million tonnes (9.9%) from 2013 to 2014, and increase of 1.41 million tonnes (13.8%) from 2014 to 2015 (see Figure 1 below).
- C&D waste was the source of waste with the largest change, increasing from 4.45 tonnes in 2014 to 5.56 million tonnes in 2015 (an increase of 1.1 million tonnes; 25.1%) (see Figure 1 below).
- Between 2011 and 2015 the variability in waste generated is primarily due to C&D waste generated. The year on year change in C&D waste generated was an increase of 1.1 million tonnes (25.1%) from 2014 to 2015, a decrease of 816,538 tonnes (15.5%) from 2013 to 2014, an increase of 1.4 million tonnes (37.8%) from 2012 to 2013, and a decrease of 1.5 million tonnes (28.4%) from 2011 to 2012. In comparison, the household waste generated varied by no more than 5% year on year during the same period.
- Excluding C&D sourced waste, there was an increase in waste generated of 298,173 tonnes (5.2%) from 2014 to 2015. However the waste generation trend has been generally downward for the 2011 – 2015 period (see Figure 2 below).
- The generation of C&D waste is sensitive to large regional projects, which accounts for the year on year variation in C&D waste generated. For example in 2013 almost 400,000 tonnes of soils were generated and recycled as part of one project in Scotland – a major gas plant construction project.

Figure 1. WFAS generated by waste source in Scotland 2011-2015

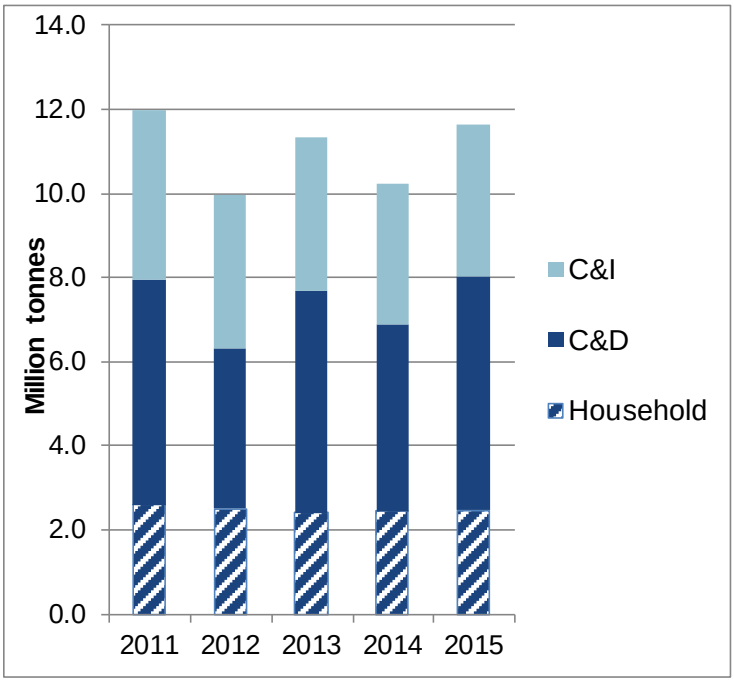
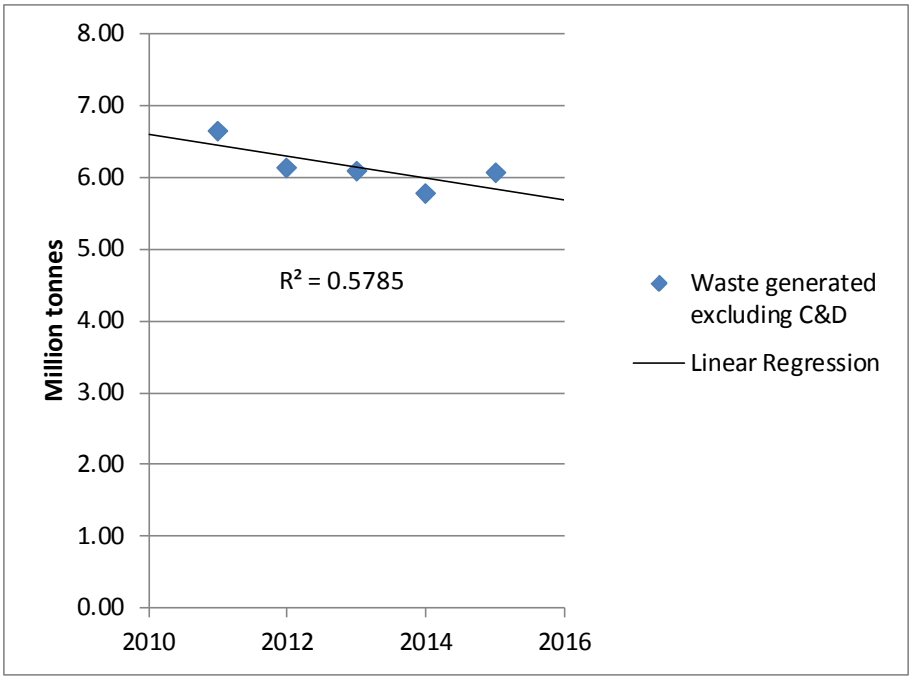


Table 3. Scottish WFAS generated by waste source 2011 - 2015

Year	C&I (tonnes)	C&D (tonnes)	Household (tonnes)	Total waste generated (tonnes)
2011	4,025,733	5,337,281	2,606,759	**11,969,774**
2012	3,639,627	3,819,510	2,500,995	**9,960,132**
2013	3,662,432	5,265,035	2,412,706	**11,340,173**
2014	3,310,131	4,448,497	2,459,559	**10,218,187**
2015	3,599,063	5,563,169	2,468,800	**11,631,032**

Figure 2. Waste generation trend excluding C&D sources 2011-2015



- The largest waste category generated in Scotland in 2015 was Soils (4.06 million tonnes, 34.9% of all waste generated), followed by Household and similar wastes (1.98 million tonnes, 17.0%) and Mineral waste from construction and demolition (1.39 million tonnes, 12.0%).
- It should be noted that the category Household and similar wastes shown in Figure 3 below includes waste generated by businesses as well as households. This category includes waste collected by local authorities and private waste management companies. In 2015, there were 1.41 million tonnes of household and similar waste generated by households, and 574,214 tonnes generated by Scottish businesses. The household and similar waste generated has decreased year on year from 3.05 million tonnes in 2011 to 1.98 million tonnes in 2015 (1.06 million tonne decrease, 34.9%). Of the 1.06 million tonne (34.9%) decrease in Household and similar waste since 2011, around one third was due to a decrease in Household and similar waste generated by households and two thirds was due to a decrease in Household and similar waste generated by business.
- The reduction in Household and similar waste is likely partly due to implementation of general policies targeted at reducing waste, including a new legislative duty of care that requires all waste producers (excluding householders) to segregate material for recycling, the implementation of source segregated recycling services to the commercial

and public sector as required under the Waste Scotland Regulations (2012), and reduction in frequency of residual waste collections by local authorities.

Figure 3. Scottish waste generated by waste category 2011 - 2015

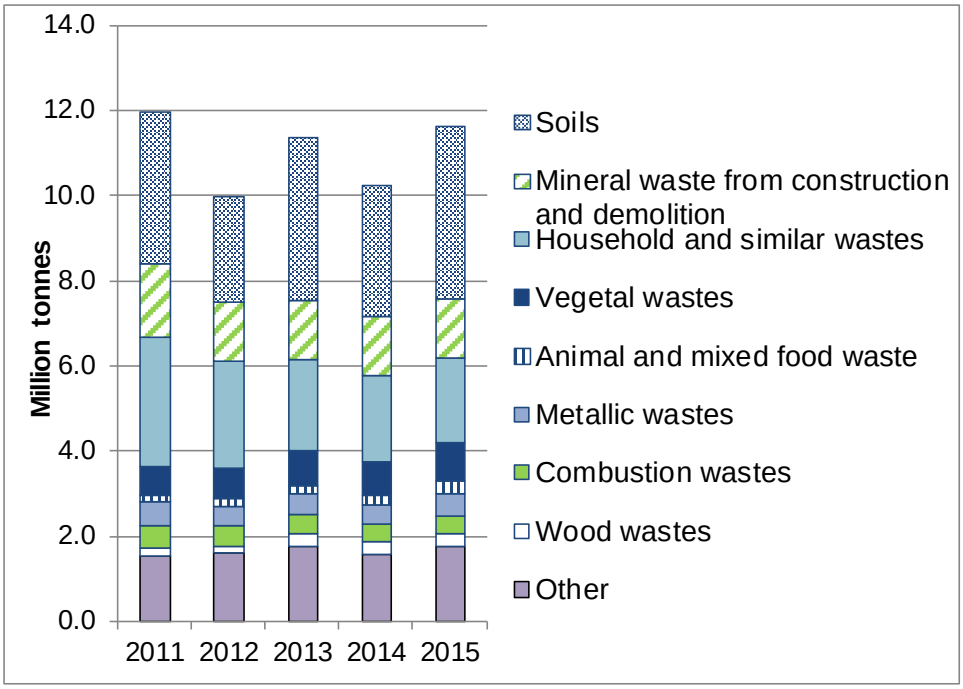


Table 4. Scottish waste generated by waste category 2011 - 2015

Waste Category	Year				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Soils	3,593,459	2,456,728	3,808,590	3,047,060	4,061,490
Household and similar wastes	3,047,022	2,536,231	2,157,051	2,020,493	1,982,396
Mineral waste from construction and demolition	1,703,764	1,387,767	1,377,447	1,395,850	1,392,265
Vegetal wastes	656,695	717,032	808,787	798,949	913,624
Metallic wastes	540,538	468,693	517,700	423,823	539,597
Combustion wastes	542,756	499,687	453,684	421,972	416,288
Animal and mixed food waste	169,914	155,604	180,810	243,446	283,622
Wood wastes	176,684	152,784	292,218	312,801	278,084
Other	1,538,942	1,585,605	1,743,886	1,553,794	1,763,666
Total	**11,969,774**	**9,960,132**	**11,340,173**	**10,218,187**	**11,631,032**

- Separately collected Animal and mixed food waste generated increased from 169,914 tonnes in 2011 to 283,622 tonnes in 2015 (see Figure 4 below), an increase of 66.9%.

- Separately collected animal and mixed food waste from commercial sources increased in 2015 (see Figure 4 below), consistent with the upward trend of this waste category from household sources. This is also consistent with the implementation of the Waste (Scotland) Regulations 2012 that requires businesses in Scotland to source segregate materials including, in urban areas, food waste and requires local authorities to provide a minimum food waste recycling service to householders.
- It should be noted that the increase in separately collected animal and mixed food waste does not necessarily indicate an increase in the generation of food waste in Scotland. Rather, it likely indicates that this waste was previously disposed with general waste and is now being collected separately for recycling.

Figure 4. Separately collected Animal and mixed food waste generated from household and C&I sources 2011 - 2015

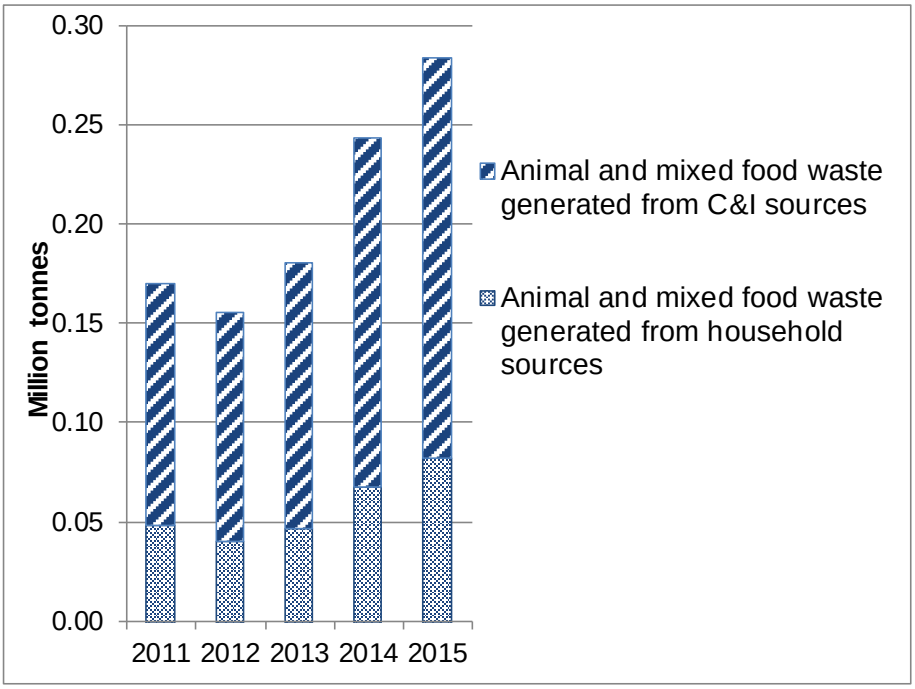


Table 5. Separately collected Animal and mixed food waste generated from household and C&I sources 2011 - 2015

Year	C&I (tonnes)	Household (tonnes)
2011	121,404	48,510
2012	114,788	40,816
2013	133,301	47,509
2014	175,581	67,865
2015	201,218	82,405

- Between 2014 and 2015, there was a decrease of 31,476 tonnes (21.5%) for separately collected Paper and cardboard generated. This was due to a decrease of 12,984 tonnes from C&I sources and decrease of 18,492 tonnes from household sources. This

decrease is part of a longer term trend, with a decrease of 74,648 tonnes (39.3%) of separately collected Paper and cardboard waste generated between 2011 and 2015. C&I sources contributed 42,327 tonnes to this decrease while household sources contributed 32,320 tonnes. Although separate data is not available for the individual paper or cardboard waste streams, the reduction in print media is likely a contributing factor to the decrease in waste Paper and cardboard generated since 2011.

Figure 5. Separately collected Paper and cardboard waste generated from household and C&I sources 2011 - 2015

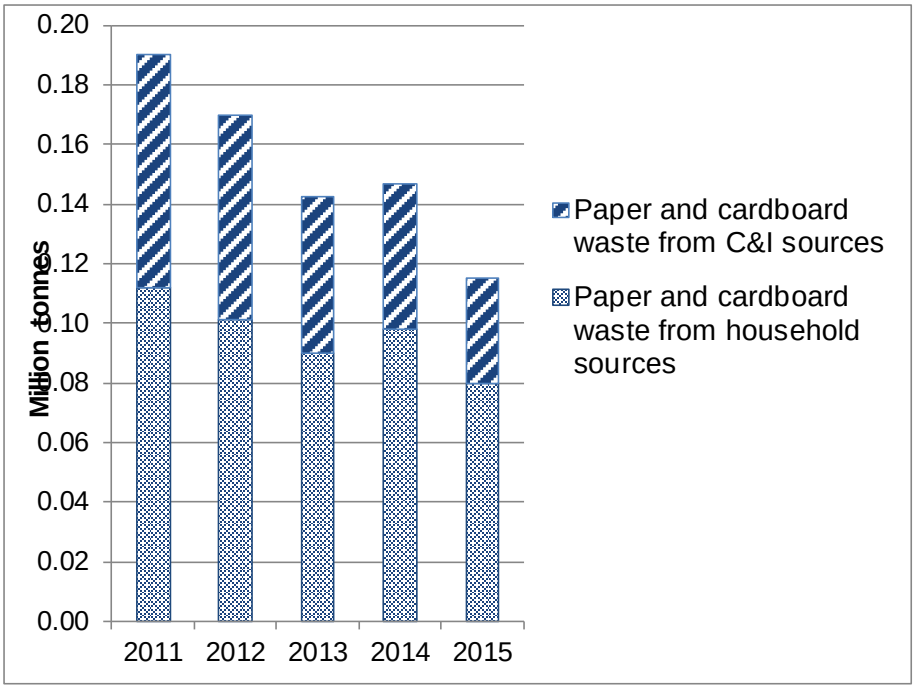


Table 6. Separately collected Paper and cardboard waste generated from household and C&I sources 2011 - 2015

Year	C&I (tonnes)	Household (tonnes)
2011	77,941	111,933
2012	68,515	101,394
2013	52,744	89,630
2014	48,597	98,105
2015	35,614	79,613

- The total quantity of hazardous waste generated in Scotland was 524,600 tonnes in 2015, an decrease of 74 tonnes (0.01%) since 2014 (see Figure 6 below). Overall there has been a decrease of 50,596 tonnes (8.8%) in the generation of Scottish hazardous waste since 2011. As in previous years, most of the hazardous waste generated in 2015 (75.6%, 396,805 tonnes) was from C&I sources.
- In 2015, the main category of hazardous waste generated was Chemical wastes (101,417 tonnes, 19.3% of all hazardous waste) followed by Spent solvents (65,420 tonnes, 12.5% - see Figure 7 below).

Figure 6. Scottish hazardous waste generated by waste source 2011 - 2015

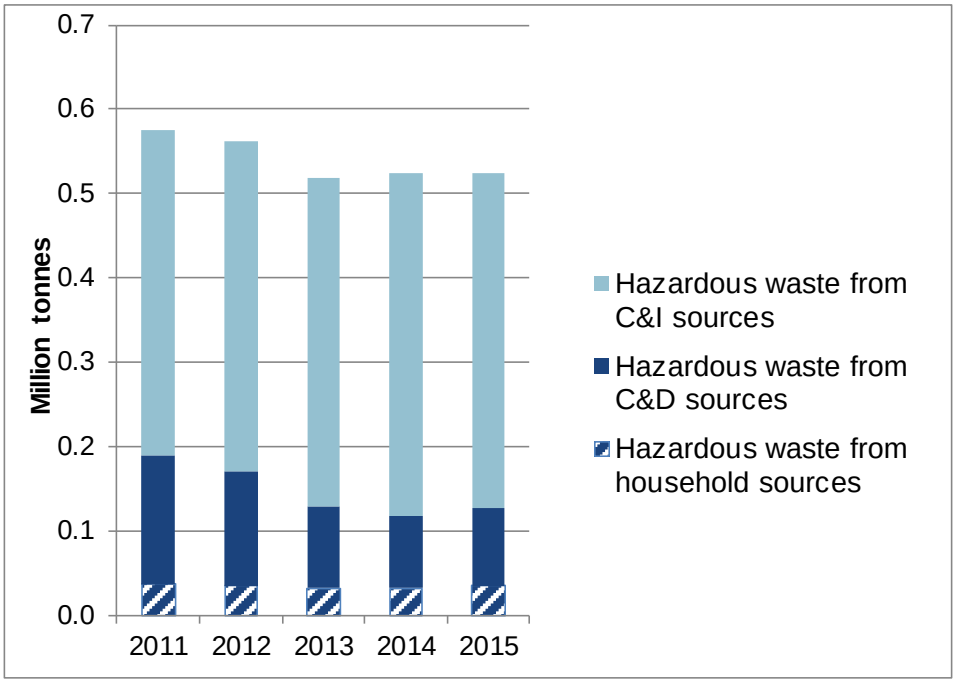


Table 7. Scottish hazardous waste generated by waste source 2011 - 2015

Year	C&I (tonnes)	C&D (tonnes)	Household (tonnes)	Total (tonnes)
2011	385,134	152,737	37,324	575,196
2012	390,135	136,718	35,000	561,853
2013	389,319	97,669	32,368	519,356
2014	405,915	85,897	32,861	524,674
2015	396,805	92,854	34,941	524,600

Figure 7. Scottish hazardous waste generated by waste category 2011 - 2015

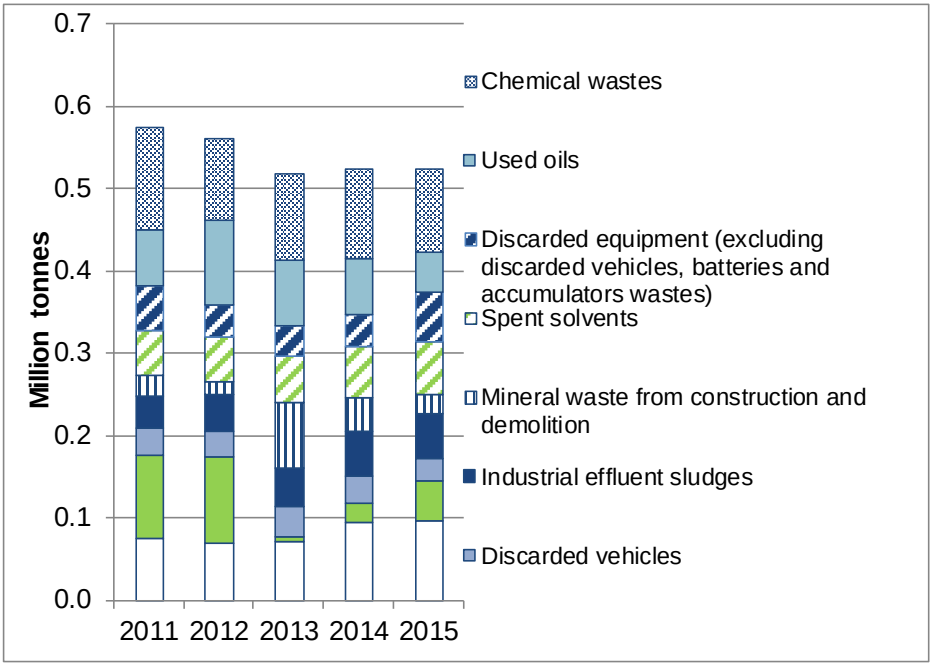


Table 8. Scottish hazardous waste generated by waste category 2011 - 2015

Waste Type	Year				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Chemical wastes	124,506	100,521	104,941	109,390	101,417
Spent solvents	53,365	53,267	55,927	60,701	65,420
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	55,868	39,244	36,893	40,097	58,950
Industrial effluent sludges	37,881	44,345	47,315	55,117	55,217
Used oils	67,615	102,210	80,940	67,396	49,171
Soils	101,230	104,043	6,158	22,204	48,402
Discarded vehicles	33,977	31,320	37,097	32,895	26,609
Mineral waste from construction and demolition	25,453	16,353	78,927	41,063	21,777
Other	75,301	70,550	71,158	95,811	97,637
Total	**575,196**	**561,853**	**519,356**	**524,674**	**524,600**

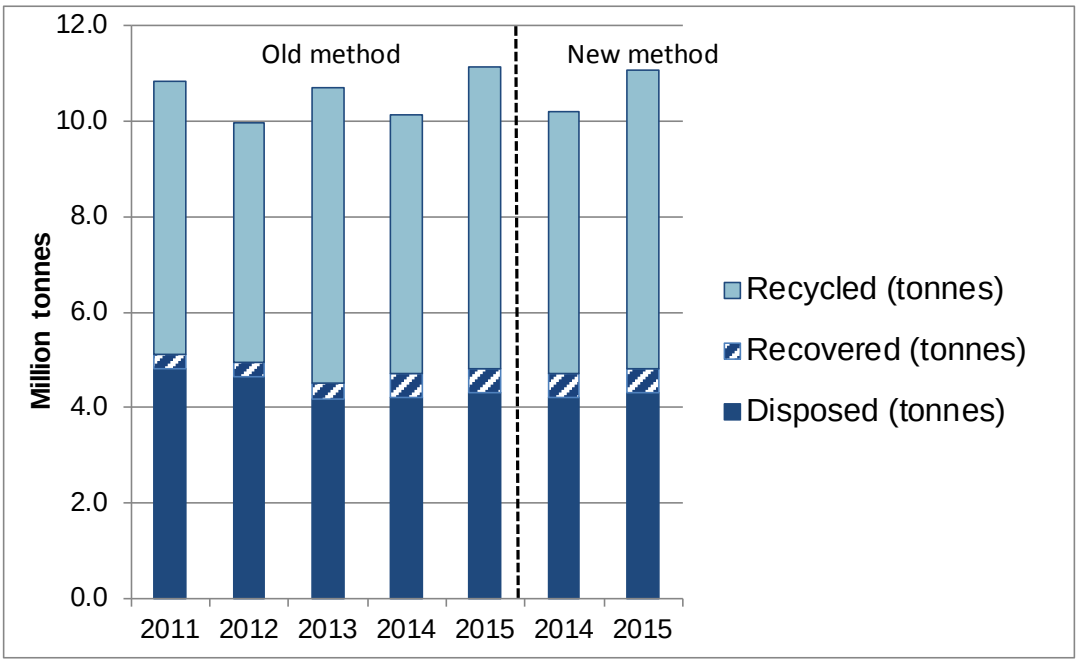
Waste Managed

- In 2015, the total amount of Scottish waste recorded as recycled, recovered by incineration or disposed was 11.04 million tonnes.
- Waste types managed do not necessarily correspond to the waste types generated. This is because waste may change form following collection and final management. For example, in 2015 there was only 5,650 tonnes of Scottish waste generated in the Sorting residues category. However, in the same period there was 1.05 million tonnes of Sorting residues recorded as managed, primarily disposed by landfill (0.91 million tonnes), incinerated by disposal (65,783 tonnes) and incinerated by recovery (59,903 tonnes). Sorting residues are typically produced as the result of the mechanical treatment of

waste. A treatment plant may take waste inputs such as Mixed and undifferentiated materials (including co-mingled materials such as mixed packaging waste) and Household and similar waste. It can then produce products that can be reused or recycled, such as metal, plastic or glass, and also produces reject material that is disposed. Consequently, the tonnage of these materials will be different in the waste generated tables compared to the waste managed tables.

- In 2015, the total amount of Scottish waste managed was 11.04 million tonnes which was 0.59 million tonnes (5.1%) less than the amount of waste generated (see Table 3 on page 5). In historical publications the gap between waste managed and waste generated was larger, with the waste generated typically between 15% - 30% greater than waste managed. SEPA produced more robust methodology for estimating C&I data generated (introduced with the 2011 publication) and for C&D waste aggregates recycled (introduced with 2014 publication and applied to historical data). With these new methodologies this gap is not as large, ranging from 0.1% greater tonnages of waste generated than managed in 2012 to 9.8% in 2011. For further information, please refer to the quality report on SEPA's web site.
- As the waste managed does not equal to the tonnages of waste generated, the percentage recycling rate and landfill rates referred to in this document (see Table 2 on page 3) are all relative to the total waste managed rather than waste generated.

Figure 8. Scottish waste managed[1, 2, 3] 2011-2015



1. Recycled includes waste recycled and reused and waste composted. Disposal include incineration by disposal and waste landfilled. Recovered includes incineration by recovery and incineration by co-incineration.
2. Waste managed is final management
3. From 2014 the measurement of the total tonnage of waste that was recycled was undertaken using a new methodology. The waste composted that did not reach the quality standards set by PAS 100/110 has not been included in the recycling figures.

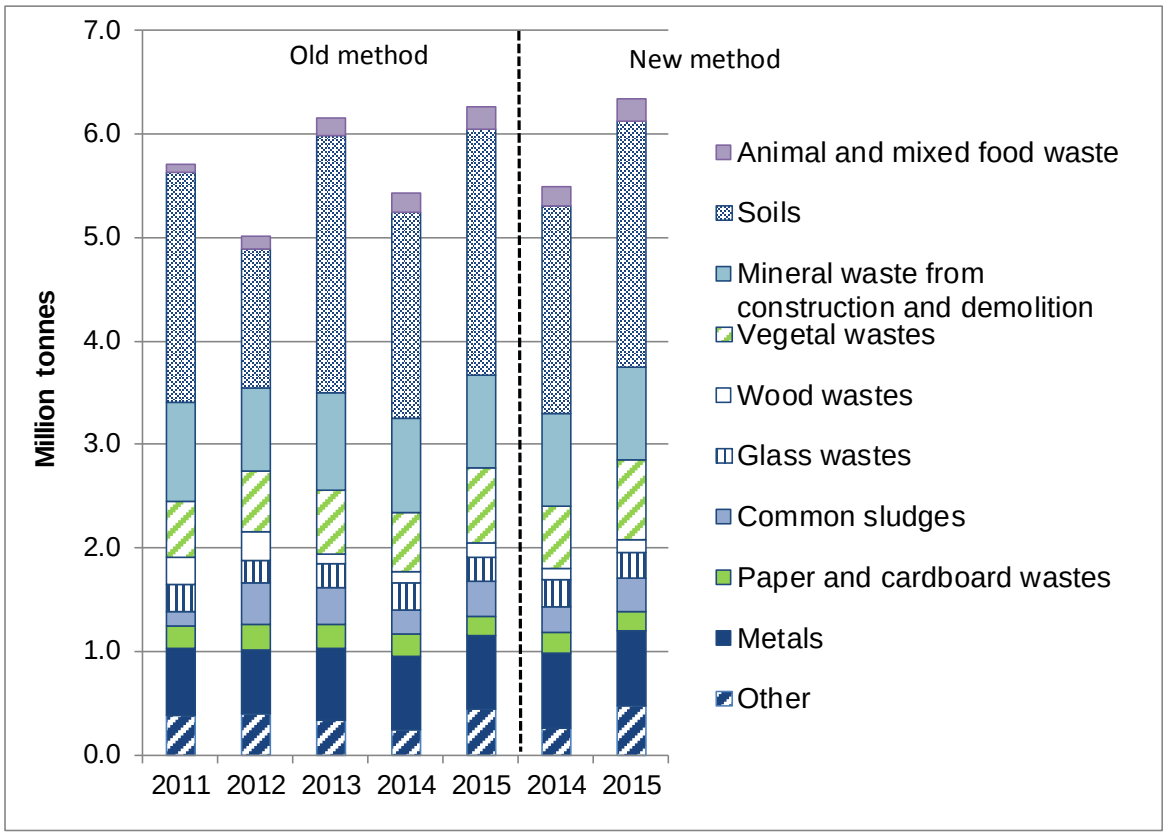
Table 9. Scottish waste managed[1, 2, 3] in 2011-2015

Year	Recycled (tonnes)	Recovered (tonnes)	Disposed (tonnes)
2011	5,706,662	278,224	4,812,817
2012	5,017,850	300,159	4,631,777
2013	6,165,454	337,517	4,171,775
2014 - Old Method	5,436,761	499,963	4,182,846
2015 - Old Method	6,341,820	475,808	4,306,030
2014 - New Method	5,499,380	499,963	4,182,846
2015 - New Method	6,260,427	475,808	4,306,030

Waste Recycled

- For the 2015 calendar year, the total tonnage of waste recycled was 6.26 million tonnes.
- In 2015, the waste category with the highest tonnage recycled was Soils (2.39 million tonnes) followed by Mineral waste from construction and demolition (883,154 tonnes) (see Figure 9 below).

Figure 9. Scottish waste recycled[1, 2, 3] by waste category 2011 – 2015



1. Recycled includes waste recycled and reused and waste composted.
2. Waste managed is final management
3. From 2014 the measurement of the total tonnage of waste that was recycled was undertaken using a new methodology. The waste composted that did not reach the quality standards set by PAS 100/110 has not been included in the recycling figures.

Table 10. Scottish waste recycled by waste category 2011 – 2015

Waste Category	Year						
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 – Old Method (tonnes)	2015 – Old Method (tonnes)	2014 - New Method (tonnes)	2015 - New Method (tonnes)
Soils	2,218,276	1,344,982	2,492,680	2,001,169	2,390,926	2,001,169	2,390,926
Mineral waste from construction and demolition	963,273	800,937	941,212	906,593	883,154	906,593	883,154
Metals	649,597	618,286	681,980	722,680	722,584	722,680	722,584
Vegetal wastes	538,308	581,506	611,754	606,374	771,926	574,148	730,286
Common sludges	132,449	403,278	367,864	237,614	328,751	237,614	328,751
Glass wastes	276,774	214,635	218,508	265,218	242,087	265,218	242,087
Paper and cardboard wastes	213,725	244,521	232,114	205,939	185,787	205,939	185,779
Wood wastes	259,251	288,332	100,256	101,573	134,825	101,395	134,723
Animal and mixed food waste	71,572	127,753	176,633	189,400	206,991	183,980	203,101
Other	383,436	393,619	342,452	262,819	474,787	238,026	439,036
Total	**5,706,662**	**5,017,850**	**6,165,454**	**5,499,380**	**6,341,820**	**5,436,761**	**6,260,427**

- The 6.26 million tonnes of waste recycled in 2015 was an increase of 823,666 tonnes (15.1%) from the 5.44 million tonnes recycled in 2014. This difference was primarily due to an increase in the recycling of Soils (increase of 389,757 tonnes, 19.5%) and Vegetal wastes (increase of 156,137 tonnes, 27.2%). Soil is primarily from the C&D sector, which varies considerably year on year with construction economic outputs and major projects in the country. The increase in Vegetal wastes is almost exclusively due to an increase in wastes from spirits distillation (EWC code 02 07 02) recycled on land for agricultural or ecological benefit. The amount of these wastes recycled increased by 145,713 tonnes (45.9%) from 317,711 tonnes in 2014 to 463,424 tonnes in 2015.
- In 2015 there was 485,772 tonnes of organic wastes recycled in composting or anaerobic digestion facilities (see Figure 10 below). This is a decrease of 7,467 tonnes (1.5%) from the 493,239 tonnes of organic wastes recycled by composting or digestion in 2014. An increase in recycling of Animal and mixed food waste (188,143 tonnes composted or digested, an increase of 4.8%) was offset by a decrease (5,190 tonnes, 2.0%) in Vegetal wastes composted or digested and decrease in generation of Common sludges (7,686 tonnes, 32.9%) such as sludges from treatment of food processing wastes.
- Using the previous recycling method, the composting or digestion of Animal and mixed food waste increased from 66,499 tonnes in 2011 to 192,033 tonnes in 2015, an increase of 188.8% (125,534 tonnes). The increasing trend in food waste recycling corresponds to the roll-out of separate food waste collections under the Waste Scotland Regulations (2012).
- The tonnage of Animal and mixed food waste composted or digested (188,143 tonnes) in 2015 was 33.7% less than the tonnages generated (283,622 tonnes). The difference is due to a proportion of the Animal and mixed food waste generated, such as sludges from washing and cleaning of fish processing waste, disposed as a mixed waste following waste treatment.

Figure 10. Scottish organic waste recycled by composting or anaerobic digestion 2011 - 2015

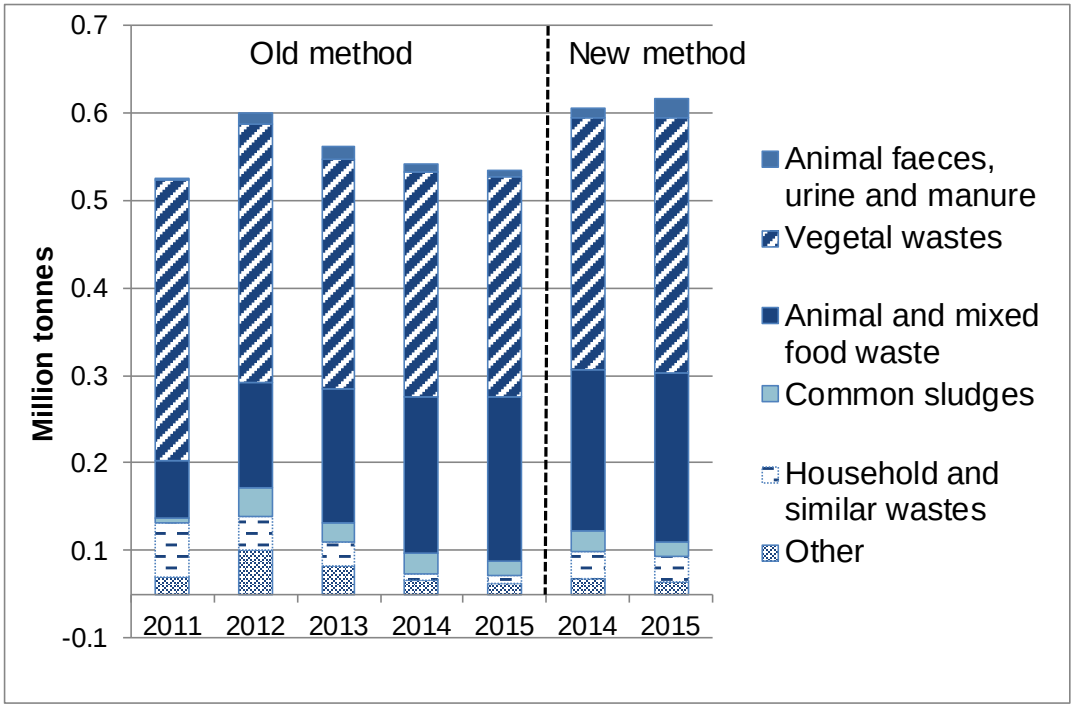


Table 11. Scottish organic waste recycled by composting or anaerobic digestion by waste category 2011 - 2015

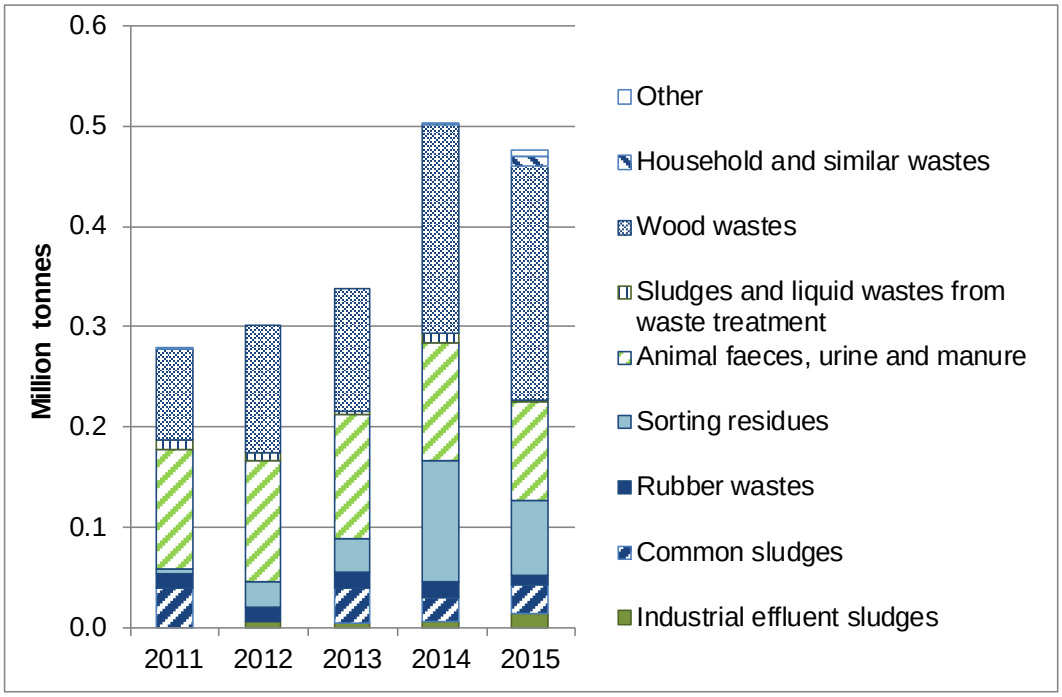
Waste Category	Year						
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 - Old Method (tonnes)	2015 - Old Method (tonnes)	2014 (tonnes)	2015 (tonnes)
Vegetal wastes	320,025	296,333	261,760	288,663	292,888	256,437	251,247
Animal and mixed food waste	66,499	119,496	152,469	184,878	192,033	179,458	188,143
Household and similar wastes	60,593	37,352	26,812	30,255	29,981	7,503	9,365
Common sludges	5,160	33,256	23,204	23,351	15,665	23,351	15,665
Animal faeces, urine and manure	150	12,738	15,201	9,727	21,368	9,615	7,552
Other	21,518	52,339	33,066	18,984	15,229	16,874	13,800
Total	**473,945**	**551,514**	**512,513**	**555,858**	**567,165**	**493,239**	**485,772**

Waste Recovered

- In 2015, there was 475,808 tonnes of waste recovered at incineration or co-incineration facilities. This is a decrease of 24,155 tonnes (4.8%) from 2014. The longer term trend however has been an increase in waste recovery, with an increase of 197,584 tonnes of waste recovered (71.0%) since 2011.

- The largest waste type recovered in 2015 was Wood wastes (233,616 tonnes, 49.1% of all waste recovered) followed by Sorting residues (75,949 tonnes, 16.0%). A decrease of 45,266 tonnes (37.3%) in the amount of Sorting residues recovered by incineration from 2014 to 2015 was due to a decrease of these wastes exported to Europe for incineration. An increase in Household and similar wastes incinerated by recovery from zero tonnes in 2014 to 9,749 tonnes in 2015 was due to the accreditation of English incinerators to the R1 energy recovery standard in 2015.

Figure 11. Scottish waste incinerated by recovery[1] by waste category 2011 - 2015



1. Waste incinerated by recovery includes waste inputs to co-incineration and incineration facilities that have been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.

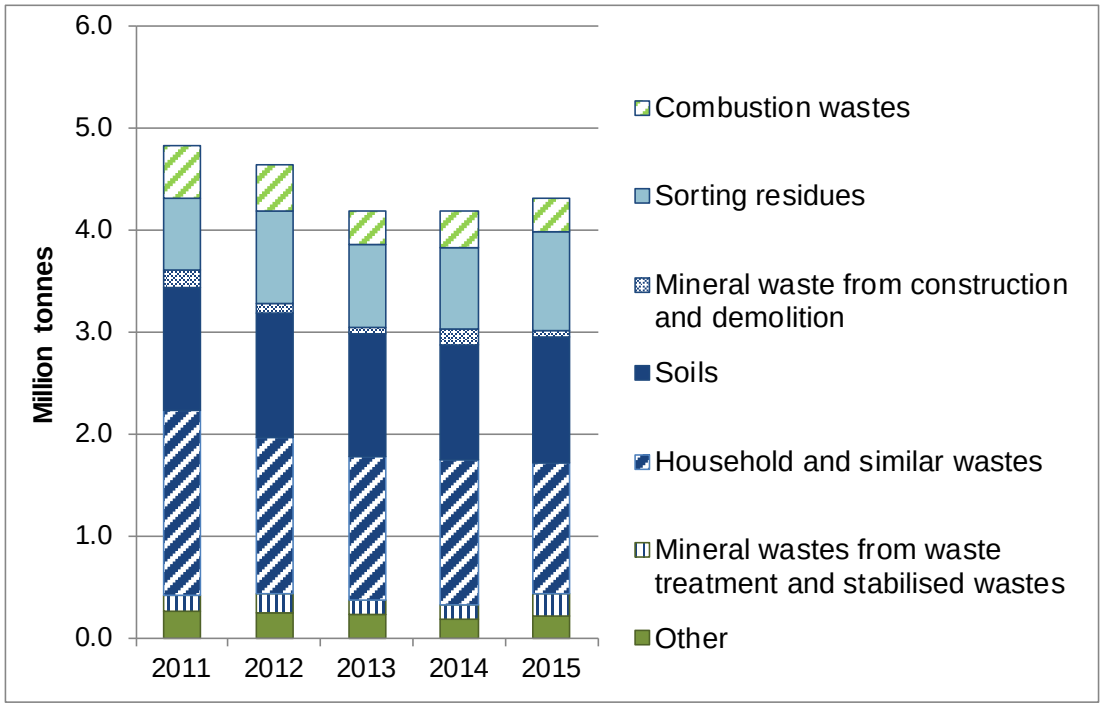
Table 12. Scottish waste incinerated by recovery by waste category 2011 – 2015

Waste Category	Year				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Wood wastes	90,616	127,621	122,523	206,895	233,616
Animal faeces, urine and manure	119,309	120,509	123,748	117,431	97,731
Sorting residues	5,192	26,089	33,759	121,214	75,949
Common sludges	37,200	0	36,060	22,430	28,417
Rubber wastes	15,235	14,539	15,025	16,183	8,594
Sludges and liquid wastes from waste treatment	8,745	7,150	4,082	10,410	1,476
Industrial effluent sludges	0	4,252	2,319	5,295	12,985
Household and similar wastes	0	0	0	0	9,749
Other	1,927	0	0	104	7,292
Total	**278,224**	**300,159**	**337,517**	**499,963**	**475,808**

Waste Disposed

- In 2015, there was 4.3 million tonnes of waste disposed at landfill or incinerators without energy recovery facilities. This is an increase of 123,184 tonnes (2.9%) from 2014. The longer term trend however has been a decrease in waste disposal, with a decrease of 506,786 tonnes of waste disposed (10.5%) compared with 2011.
- The waste type with the largest amount disposed in 2015 was Household and similar waste (1.27 million tonnes) followed by Soils (1.27 million tonnes) and Sorting residues (972,489 tonnes) as depicted in Figure 12 below.

Figure 12. Scottish waste disposed[1] by waste category 2011 - 2015



1. Waste disposed includes waste landfilled and waste inputs to incineration facilities that have not been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.

Table 13 Scottish waste disposed by waste category 2011 – 2015

Waste Category	Year				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Household and similar wastes	1,817,999	1,528,431	1,415,035	1,414,079	1,270,273
Soils	1,202,936	1,217,230	1,197,673	1,131,116	1,237,837
Sorting residues	697,780	909,820	822,253	800,280	972,489
Combustion wastes	511,179	453,593	318,714	364,589	333,996
Mineral wastes from waste treatment and stabilised wastes	156,868	191,285	134,874	145,413	233,680
Mineral waste from construction and demolition	178,606	95,700	60,451	152,154	60,980
Other	247,449	235,718	222,774	175,216	196,775
Total	**4,812,817**	**4,631,777**	**4,171,775**	**4,182,846**	**4,306,030**

- Scottish waste disposed to landfill in 2015 was 4.13 million tonnes, an increase of 105,467 tonnes (2.6%) from the 4.03 million tonnes landfilled in 2014. The longer term trend is decreasing disposal to landfill (see Figure 13 below), with 2.87 million tonnes (41.0%) less waste disposed to landfill in 2015 than in 2005 (7.01 million tonnes).
- As depicted in Figure 14, below, there was 53,776 tonnes of Scottish Hazardous waste disposed to landfill in 2015, which amounts to 1.3% of all Scottish waste landfilled. The bulk of Scottish hazardous waste landfilled was hazardous Soils (27,210 tonnes, 50.6% of all hazardous waste landfilled) followed by Other mineral wastes (21,721 tonnes, 40.4%) which primarily comprise insulating materials such as asbestos.
- Scottish waste disposed by incineration without energy recovery in 2015 was 171,079 tonnes, an increase of 17,717 tonnes (11.6%) from the 153,362 tonnes incinerated without energy recovery in 2014. The largest waste category incinerated by incineration without energy recovery in 2015 was Household and similar wastes (92,071 tonnes, 53.8% of total), followed by Sorting residues (65,783 tonnes, 38.5%). The increase in 2015 was primarily due to incineration of Sorting residues, which increased by 65,783 tonnes (38.5%) from 2014.

Figure 13. Scottish waste disposed by waste category to landfill 2005 – 2015

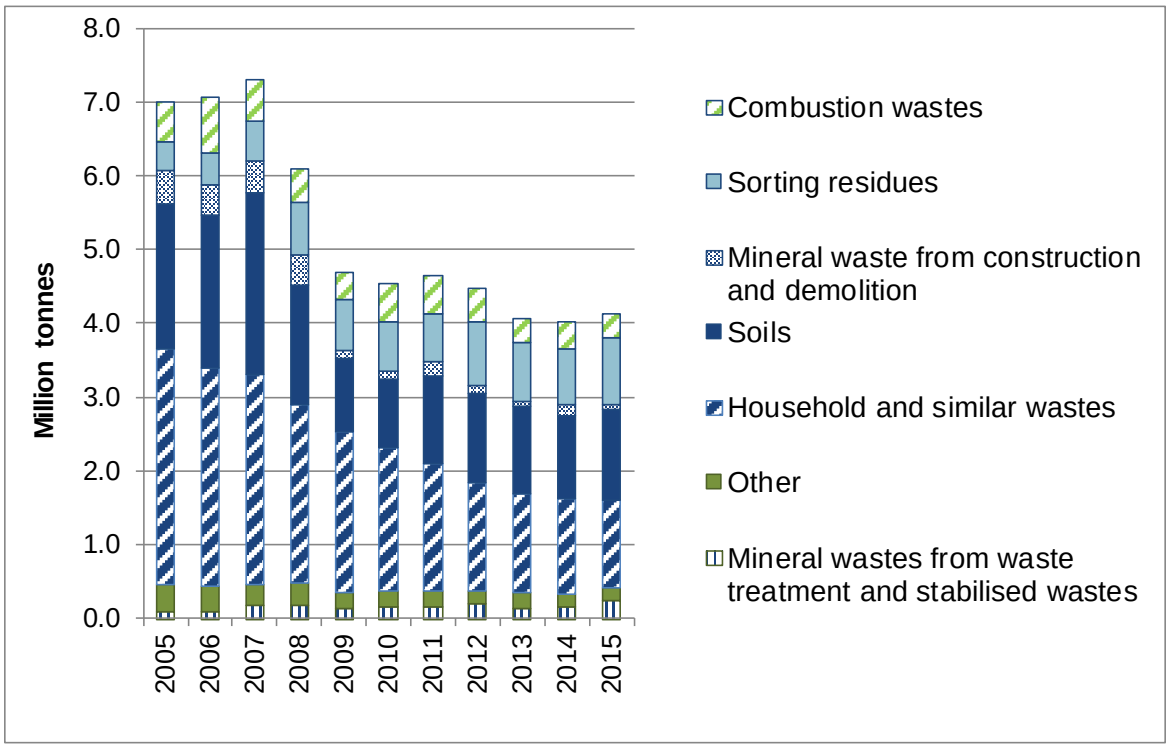


Figure 14. Scottish hazardous waste disposed by waste category to landfill 2005 – 2015

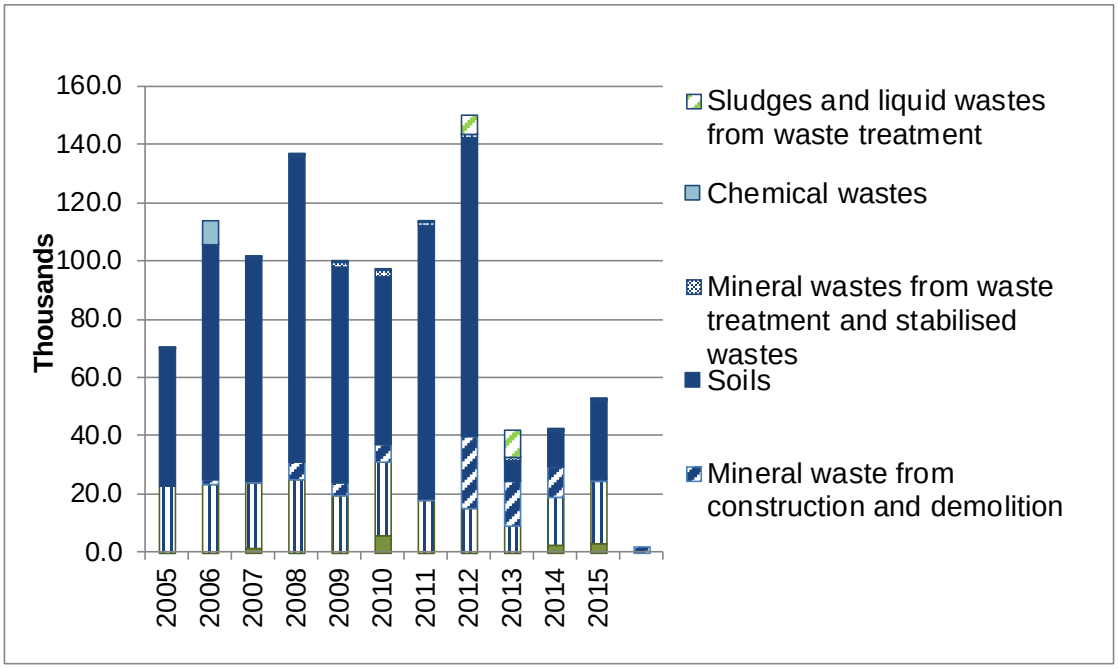


Table 14. Scottish waste disposed to landfill 2011 – 2015

Waste Category	Year										
	2005 (tonnes)	2006 (tonnes)	2007 (tonnes)	2008 (tonnes)	2009 (tonnes)	2010 (tonnes)	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Household and similar wastes	3,211,792	2,971,314	2,857,236	2,438,260	2,191,014	1,938,768	1,730,846	1,470,698	1,353,671	1,311,328	1,178,202
Soils	1,965,986	2,064,745	2,464,810	1,619,925	999,198	943,141	1,202,936	1,217,230	1,197,673	1,131,116	1,237,837
Sorting residues	390,914	441,827	560,868	717,022	708,176	677,837	668,129	868,224	794,755	760,714	906,706
Combustion wastes	532,420	758,621	555,924	436,725	353,903	521,327	511,179	453,593	318,714	364,589	333,996
Mineral waste from construction and demolition	456,289	411,431	426,459	413,372	100,578	97,696	178,606	95,700	60,414	150,913	60,961
Mineral wastes from waste treatment and stabilised wastes	79,464	88,267	164,963	176,634	124,431	143,225	156,868	191,285	134,874	145,413	233,680
Other	370,010	341,992	288,818	292,988	209,739	221,232	206,389	181,144	200,227	165,411	183,569
Total	**7,006,875**	**7,078,197**	**7,319,077**	**6,094,926**	**4,687,039**	**4,543,226**	**4,654,954**	**4,477,873**	**4,060,329**	**4,029,484**	**4,134,951**

Table 15. Scottish hazardous waste disposed to landfill by waste category 2011 – 2015

Waste Category	Year										
	2005 (tonnes)	2006 (tonnes)	2007 (tonnes)	2008 (tonnes)	2009 (tonnes)	2010 (tonnes)	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Soils	46,766	80,851	76,120	104,669	73,987	57,530	93,805	102,497	7,509	12,147	27,210
Other mineral wastes	22,537	23,115	22,538	23,753	18,960	25,284	17,027	14,777	8,681	16,606	21,721
Mineral waste from construction and demolition	1,585	626	6,182	4,724	6,110	139	24,580	15,211	10,418	192	1,637
Mineral wastes from waste treatment and stabilised wastes	191	15	535	661	1,535	1,754	1,033	1,101	845	341	402
Chemical wastes	3	7,842	149	276	115	363	128	36	34	250	34
Sludges and liquid wastes from waste treatment	0	0	205	428	137	0	357	6,596	9,446	3	120
Other	245	85	1,149	746	243	5,706	850	378	112	2,098	2,652
Total	**71,328**	**112,534**	**106,877**	**135,257**	**101,087**	**90,776**	**137,782**	**140,594**	**37,045**	**31,639**	**53,776**

Figure 15. Scottish waste disposed by incineration without energy recovery[1] by waste category 2011 – 2015

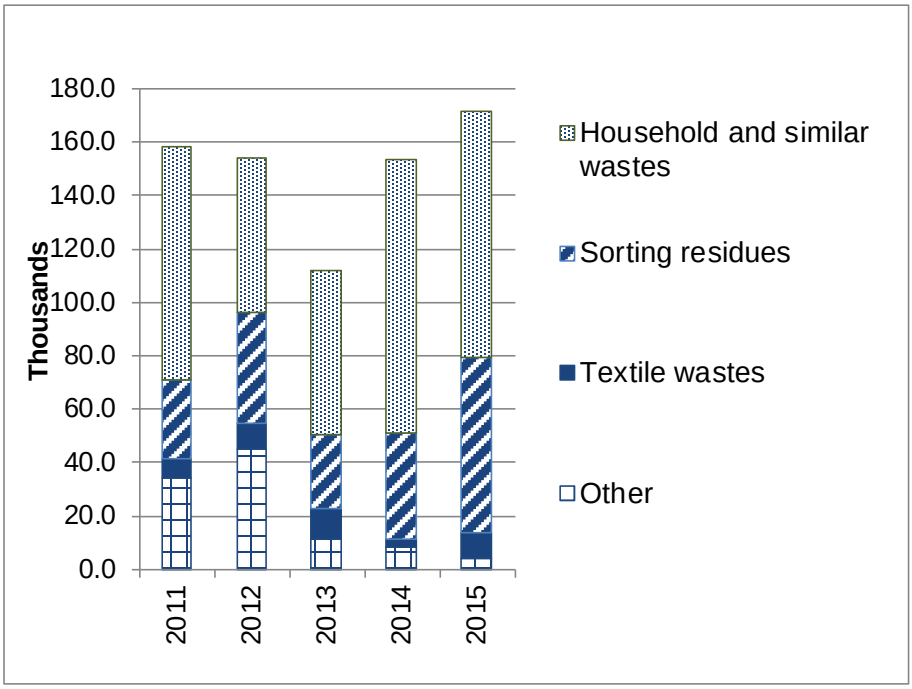


Table 16. Scottish waste disposed by incineration without energy recovery by waste category 2011 – 2015

Waste Category	Year				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)
Household and similar wastes	87,153	57,733	61,364	102,750	92,071
Sorting residues	29,650	41,596	27,499	39,566	65,783
Textile wastes	6,960	9,723	11,597	3,015	9,536
Other	34,100	44,851	10,987	8,031	3,690
Total	**157,863**	**153,904**	**111,447**	**153,362**	**171,079**

DATA USES, FEEDBACK, REVISIONS POLICY, METHODOLOGY, GLOSSARY OF TERMS AND MEASURES, AND REFERENCES

User Statement

Data on WFAS generation and management are collected to monitor policy effectiveness, particularly the commitments in the Zero Waste Plan, Safeguarding Scotland's Resources, and Scotland's Circular Economy Strategy and to support policy development. The data are also used to meet legislative reporting targets on recycling targets set out in the Waste Framework Directive (2008/98/EC) and Commission Decision establishing rules and calculation methods for verifying compliance with the targets set in the Waste Framework Directive (2011/753/EU) and to supply data for the Waste Statistics Regulation (2002/2150/EC). The data are used extensively by local and central government, the waste industry, researchers and the public as well.

Feedback

We welcome feedback on the data from all users including how and why the data is used. This helps us to understand the value of the statistics to external users. Please see our contact details at the bottom of the first page of this notice or e-mail: waste.data@sepa.org.uk.

Revisions Policy

SEPA will provide information about any revisions made to published information in this release and the associated datasets. Revisions could occur for various reasons, including when data from third parties is unavailable or provisional at the time of publishing or if there are subsequent methodological improvements or refinements.

The figures are accurate at the time of publication. However the data may be updated if further revisions are necessary. Normally these revisions will be published concurrent with the next release.

Revisions undertaken since the 2014 publication include:

Household waste material categories: the mapping of WasteDataFlow materials into reporting categories changed. These do not impact on the overall household waste generated. They may, however, change the waste generated for individual waste categories. The changes made are as follows:

WasteDataFlow Category	Old Mapping	New Mapping
Mixed garden and food waste	Animal and mixed food waste	Vegetal wastes (75%) Animal and mixed food waste (25%)
Carpets	Household and similar wastes	Textile wastes
Absorbent Hygiene Products (AHP)	Household and similar wastes	Health care and biological wastes
Co-mingled materials	Household and similar wastes	Mixed and undifferentiated materials
Incinerator bottom ash	Household and similar wastes	Combustion wastes

All household data from 2011-2015 have been revised in line with this new classification.

Wood, glass and plastics recycled in Scotland: Previously, all recycling data was obtained from the Accredited Reprocessor dataset. Where available, PPC annual reports have been used to supplant the Accredited Reprocessor data for all years 2011 - 2015. This is thought to be a more reliable data source for non-obligated packaging waste and non-packaging waste. Additionally, the waste source (Scotland or Outside Scotland) for glass and plastics has been revised for all years 2011 - 2015.

Sorting Wastes Incinerated: Data collected under the Trans Frontier Shipment of Waste regulations (TFS) is now used to estimate Sorting Wastes exported outside the UK for incineration. This is thought to be more accurate than the previous method of using outputs from Scottish permitted waste sites, as it is inclusive of waste sent from sites exempt from permitting. Refuse Derived Fuel (RDF) outputs from Scottish permitted waste sites is now used in the incineration dataset to estimate Sorting Waste sent to other UK countries, even if data returns indicates it is not incinerated. It is assumed RDF will eventually be incinerated. The incinerator dataset for 2011 – 2015 inclusive has been updated.

Paper and card recycled: A historical gap in the recycling dataset is waste sent to sites that operate under simple waste exemptions which export waste direct to England or overseas for recycling. Commencing in 2016 SEPA has recorded a description of the facility from which outputs of waste from permitted sites has been sent. This data has been used to estimate Paper and card waste sent to sites for recycling that operate under a simple exemption. The Paper and card waste sent to these sites is assumed to be eventually recycled. As there is no data prior to 2016, the 2016 data has been used as a proxy for the years 2011 – 2015.

Soils and C&D waste recycled: An erratum has been made to the 2014 dataset.

Landfill Data: An erratum was made to the 2005 landfill data to correct the incorrect hazard classification of combustion wastes landfilled. The hazard classification has been changed from hazardous to non-hazardous.

Methodology

Data is taken from licence, permitted and exempt waste site returns submitted to SEPA, from accredited reprocessor returns, from voluntary returns provided by waste sites on the industry source of data provided to SEPA, from voluntary returns provided by aggregate producers on the quantity of waste used to produce an aggregate product, and from all 32 Scottish local authorities using the web-based reporting tool WasteDataFlow.

From 2014, composted wastes that do not reach the quality standards set by PAS 100/110 does not contribute to the waste composted figures. Further details on the methodology used to produce the figures are provided in the annual Waste Data Quality Reports on SEPA's web site. Please note that WFAS figures published by individual UK countries may be based on alternative calculation methodologies and as such the figures may not be directly comparable.

Glossary of terms

BSI PAS 100 / 110 – a national compost benchmark that specifies the minimum requirements for the process of composting, the selection of material from which compost is made, and standards for the compost product quality. PAS 100 is applicable to composting facilities while PAS 110 is applicable to anaerobic digestion facilities. The use of this standard to improve the quality of compost in Scotland became part of Scottish Government policy in 2011, with 2014 being the first year it has been applied to the household official statistics. Organic waste recycled that do not meet this standard have not been including in recycling statistics for the 2014 dataset.

Co-incineration – an incineration facility in which the main purpose is the generation of energy or production or material products (e.g. cement) and which uses waste as an additional fuel.

C&I Waste – waste arising from commercial and industrial sources. Includes waste from business and industrial premises in Scotland, but excludes waste from the construction industry.

C&D Waste – waste arising from the construction and demolition industry

C&D Waste – construction and demolition waste

EWC Code – European Waste Catalogue waste code

Hazardous Waste – waste with hazardous properties which may render it harmful to human health or the environment. Hazardous waste is also called Special Waste in Scotland as defined in the Special Waste Regulation 1996 (and amendments)

WFAS – waste from all sources. This includes waste from commercial and industrial sources, construction and demolitions sources as well as from household sources.

Recycling rate – is defined as waste recycled as a percentage of all waste managed. Note that total waste generated does not equal waste managed due to differences in methodologies used to calculate the waste generated and waste managed.

Waste disposed - is waste incineration by disposal and waste landfilled.

Waste generated - is waste that directly arises from Scottish business' and households during the reporting year. It does not include waste that does not directly arise from the business, for example waste that is taken in by a business from another business and subsequently disposed is excluded from the waste generation.

Waste landfilled –includes all WFAS that is disposed of at landfill sites instead of being recycled or recovered. It also includes incinerator ash that is landfilled, plus any recycling and composting rejects that occur during collection, sorting or further treatment that go to landfill.

Waste managed - includes all wastes recycled, disposed and recovered within the relevant reporting year.

Waste incineration by disposal- includes all wastes incinerated by at an incineration facility where the energy efficiency has not been demonstrated to meet the R1 criteria specified in the EU Waste Framework Directive (Directive 2008/98/EC).

Waste incineration by recovery - includes all wastes incinerated by co-incineration and waste incinerated at an incineration facility where the energy efficiency has been demonstrated to meet the R1 criteria specified in the EU Waste Framework Directive (Directive 2008/98/EC).

Waste recycled - includes recyclable materials that have been recycled or reused and also biodegradable materials that have been composted or digested. From 2014, the composting figures using the new calculation methodology do not include any waste composted that has not reached the quality standards set by PAS 100/110.