Waste from all sources – summary data 2018

This release provides a summary of Scottish waste generated and managed in calendar year 2018. The data in this release represents waste from all sources (WFAS). Further information, including revisions to the previous years' figures, definitions of terms and a methodology, is given at the end of this document.

Key points

WFAS – 2018 calendar year

- The estimated total quantity of WFAS generated in Scotland in 2018 was 11.45 million tonnes, which was unchanged from 2017. However, when broken down by waste source, there was a 3.9% (0.2 million tonnes) increase in Construction and Demolition (C&D) waste generated which was offset by reductions in waste from Commercial and Industrial (C&I) and household sources.
- The largest increase of C&I wastes generated between 2017 and 2018 was Animal and mixed food waste (increase of 58,119 tonnes, 15.9%). This is consistent with the implementation of the Waste (Scotland) Regulations 2012 that requires businesses in Scotland to source segregate materials, including food waste in urban areas.
- The quantity of separately collected Paper and cardboard waste generated increased between 2017 and 2018 by 13.5% (13,310 tonnes), although there has been an overall decrease of 40.0% (74,587 tonnes) since 2011.
- The estimated total quantity of Scottish WFAS managed in 2018 was 11.65 million tonnes which was 0.20 million tonnes (1.8%) more than the amount of waste generated. These totals do not match because the data for each are derived using different methodologies which is a consequence of the way the data are collected in different systems.
- In 2018, the estimated Scottish WFAS recycled or composted was 7.07 million tonnes, which is an increase of 27,572 tonnes (0.4%) from 2017. This is a combination of an increase in the recycling of Metals by 52,381 tonnes (6.6%) and Animal and mixed food waste by 22,117 tonnes, (6.7%), and a decrease in the recycling of vegetal waste by 33,748 tonnes (4.8%).
- The WFAS recycling rate in 2018 was 60.7%, an increase of 1.1 percentage points from the 59.6%[1] of waste recycled in 2017[1].
- The quantity of Animal and mixed food waste recycled by composting or anaerobic digestion in 2018 was 314,845 tonnes, which was 4.0% (12,016 tonnes) greater than the amount recycled in 2017.
- The amount of Scottish waste recovered by incineration with energy recovery in 2018 was 495,201 tonnes, a decrease of 208,564 tonnes (29.6%) from 2017. This is largely due to a 61.2% (192,137 tonnes) reduction in the amount of sorting residues recovered by incineration between 2017 and 2018. Further data on waste incinerated in Scotland including waste generated outwith Scotland, can be found in the Waste incinerated in Scotland 2018 statistics.

Cont.d/

[1] The 2017 recycling rate has been revised upward from the originally published 58.9%.

- Scottish waste disposed of by landfill or incineration without energy recovery in 2018 was 4.00 million tonnes, a decrease of 3,889 tonnes (0.1%) from 2017. Between 2017 and 2018, Scottish waste incinerated without energy recovery increased by 85,133 tonnes (47.6%) and Scottish waste landfilled in Scotland and elsewhere decreased by 89,022 tonnes (2.3%). Further data on all waste landfilled in Scotland, including waste generated outwith Scotland, can be found in the Waste Landfilled in Scotland 2018 statistics.
- Data for Scottish WFAS generated and managed by waste type for 2011 - 2018 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, including any revisions to historic data, are also available to download in Excel format on SEPA's website.

Initial release date 31/03/20

Enquiries on this publication to: Contact SEPA Communications Department: 01786 452546. An Official Statistics publication. These statistics have been produced to the high professional standards set out in the Code of Practice for Official Statistics, which sets out eight principles including meeting user needs, impartiality and objectivity, integrity, sound methods and assured quality, frankness and accessibility. More information on the Official Statistics Code of Practice can be found here at http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html

Table 1. Waste from all sources by waste type - Summary data 2018

Waste type [1]	Generated (tonnes)	Recycled (tonnes)	Recovered (tonnes)	Disposed (tonnes) [2]	Other Management (tonnes) [3]
Spent solvents	47,458	0	645	81	0
Acid, alkaline or saline wastes	4,726	0	0	6	0
Used oils	47,210	0	575	279	0
Chemical wastes	116,093	766	345	3,744	0
Industrial effluent sludges	58,956	232	13,492	19,876	0
Sludges and liquid wastes from waste treatment	0	34,207	12	3,758	1,580
Health care and biological wastes	26,738	0	0	10,178	0
Metallic wastes, ferrous	224,184	623,536	0	62	0
Metallic wastes, non-ferrous	40,091	82,668	0	0	0
Metallic wastes, mixed ferrous and non-ferrous	214,679	138,166	0	18	0
Glass wastes	130,716	238,594	0	2,490	0
Paper and cardboard wastes	111,720	310,366	0	38	0
Rubber wastes	35,403	43	17,509	1,866	0
Plastic wastes	53,266	75,361	0	859	0
Wood wastes	190,946	112,924	242,103	332	166
Textile wastes	11,426	0	0	996	0
Waste containing PCB	171	72	0	46	0
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	58,511	43,128	0	129	0
Discarded vehicles	82,727	48,588	0	0	0
Batteries and accumulators wastes	12,444	9,886	0	0	0
Animal and mixed food waste	423,104	351,906	0	4,714	3,306
Vegetal wastes	899,583	672,092	0	5,103	58,139
Animal faeces, urine and manure	103,365	29,837	71,563	27	5,667
Household and similar wastes	2,064,703	4,847	0	1,336,286	17,286
Mixed and undifferentiated materials	463,827	2,795	0	46,471	20
Sorting residues	2,293	0	121,804	836,793	0
Common sludges	197,200	215,230	26,752	3,192	47
Mineral waste from construction and demolition	1,276,681	1,017,367	0	36,961	0
Other mineral wastes	155,357	51,573	401	38,712	0
Combustion wastes	10,609	1,332	0	690	0
Soils	4,291,344	2,903,935	0	1,414,032	0
Dredging spoils	94,925	83,815	0	2,334	0
Mineral wastes from waste treatment and stabilised wastes	3	16,769	0	231,320	0
Total	**11,450,461**	**7,070,035**	**495,201**	**4,001,394**	**86,212**

1. 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.
2. 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. Waste recovered includes waste inputs to co-incineration facilities and to incineration facilities that have been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.
3. Other management comprises compost produced at non-PAS certified composting or anaerobic digestion plants.

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

Indicator	Year	Performance	Target / Target year
1. Recycled construction and demolition waste‡	2011	93.8%	**70% / 2020**
	2012	91.4%	
	2013	91.9%	
	2014	93.6%	
	2015	94.7%	
	2016	95.0%	
	2017	94.9%	
	2018	97.4%	
2. Recycled waste from all sources§	*2011 (old method)*	53.2%	**70% / 2025**
	2012 (old method)	51.3%	
	2013 (old method)	57.7%	
	2014 (old method)	52.6%	
	2014	52.0%	
	2015	57.0%	
	2016	59.4%	
	2017	59.6%	
	2018	60.7%	
3. Percentage of all waste sent to landfill§	2011	42.8%	**< 5% / 2025**
	2012	44.4%	
	2013	38.1%	
	2014	40.9%	
	2015	36.5%	
	2016	32.3%	
	2017	32.4%	
	2018	32.1%	
4. Percentage of waste generated compared with 2011	2012	84.1%	**<93% of 2011 baseline / 2017**
	2013	92.5%	**<85% of 2011 baseline / 2025**
	2014	83.6%	
	2015	94.3%	
	2016	89.3%	
	2017	95.8%	
	2018	95.8%	
5. Landfilled biodegradable municipal waste	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	1.33 million tonnes	
	2013	1.18 million tonnes	
	2014	1.14 million tonnes	
	2015	1.10 million tonnes	
	2016	1.14 million tonnes	
	2017	1.09 million tonnes	
	2018	1.02 million tonnes	

* Making Things Last - A Circular Economy Strategy for Scotland (2016).

‡ C&D recycling rates are from data provided to Europe for reporting under the Waste Framework Directive. For the 2020 70% target, C&D waste excludes special (hazardous) waste and soil and stones.

§ The methodology used to calculate recycling tonnages changed in 2014. The figures for 2014 and 2015 have been revised under the new method to take exclude waste composted or anaerobically digested at non-PAS certified facilities.

Data and Trends

Waste Generated

- The total quantity of waste generated in Scotland in 2018 was 11.45 million tonnes, unchanged from 2017. However, when broken down into waste source, Construction and Demolition (C&D) waste generated increased by 0.2 million tonnes, while Commercial and Industrial (C&I) waste generated decreased by 0.2 million tonnes.
- In general, the change in waste generated year on year since 2011 has varied considerably (see Figure 1), primarily due to Construction and Demolition (C&D) waste generated, with annual changes in that waste stream ranging from -26.9% to +26.1%. Over the same period, there has been an overall reduction in Commercial and Industrial (C&I) waste generated, with annual changes considerably less variable than C&D waste ranging from -15.1% to +10.2%. In comparison, Household waste generated varied by no more than 4.1% year on year during the same period.
- The generation of C&D waste is sensitive to large regional projects, which accounts for the large year on year variation in C&D waste generated. In 2018, the generation of C&D waste continued to be influenced by the works associated with the St James Centre in Edinburgh, with works for this project commencing in 2015 and continuing through 2018.
- When C&D waste is excluded, the waste generation trend has been generally downward for the 2011 – 2018 period (see Figure 1).

Figure 1. WFAS generated by waste source in Scotland 2011-2018

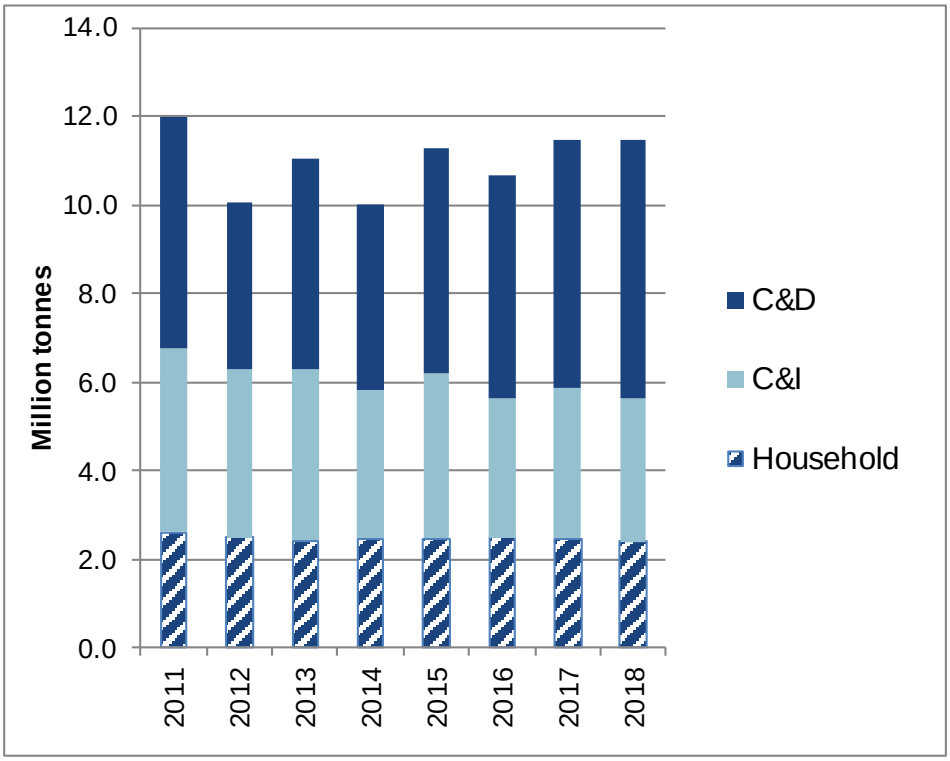


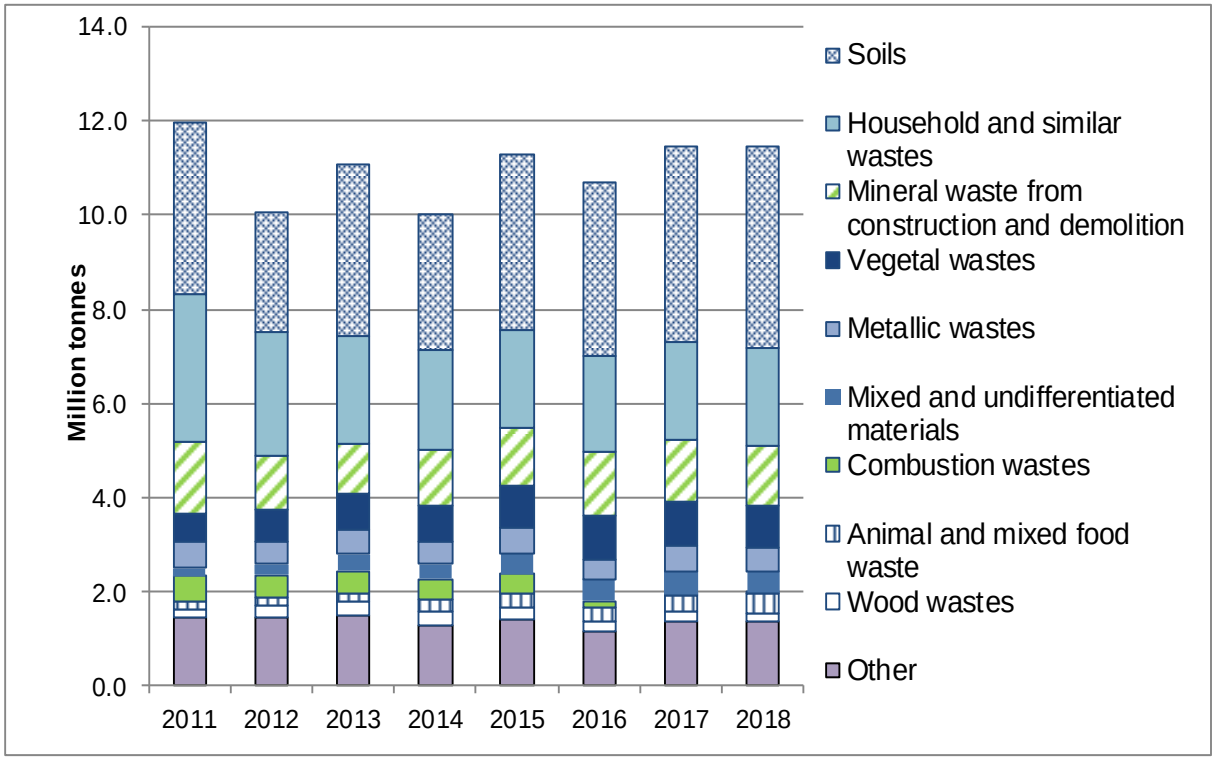
Table 3. Scottish WFAS generated by waste source 2011 - 2018

Year	C&I (tonnes)	C&D (tonnes)	Household (tonnes)	Total waste generated (tonnes)
2011	4,156,052	5,195,676	2,606,759	**11,958,486**
2012	3,764,847	3,796,997	2,500,995	**10,062,839**
2013	3,857,040	4,789,809	2,412,630	**11,059,480**
2014	3,369,844	4,172,782	2,459,558	**10,002,184**
2015	3,714,681	5,092,646	2,468,781	**11,276,108**
2016	3,154,992	5,027,759	2,498,978	**10,681,729**
2017	3,399,736	5,592,888	2,460,820	**11,453,445**
2018	3,236,534	5,808,681	2,405,246	**11,450,461**

- The waste category that generated most waste in Scotland in 2018 was Soils (4.29 million tonnes, 37.5% of all waste generated), followed by Household and similar wastes (2.06 million tonnes, 18.0%) and Mineral waste from construction and demolition (1.28 million tonnes, 11.1%) (Figure 2).
- It should be noted that the category Household and similar wastes shown in Figure 2 includes waste generated by businesses as well as households. This category includes waste collected by local authorities and private waste management companies. It does not include all household waste, for example separated waste will be included under different waste categories (details of Scottish household waste generated and managed in 2018 can be found at https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/).
- There were 2.06 million tonnes of Household and similar wastes generated in Scotland in 2018 which was a drop of 10,894 tonnes (0.5%) from 2017 (2.08 million tonnes) this was due to a fall in these wastes generated by Scottish households.
- In 2018, there were 1.34 million tonnes of Household and similar wastes generated by households, and 721,797 tonnes generated by Scottish businesses. Long-term, the amount of Household and similar wastes generated has decreased from 3.14 million tonnes in 2011 to 2.06 million tonnes in 2018 (1.08 million tonne decrease, 34.3%) Around one third of the overall decrease since 2011 was due to a reduction by households and two thirds was due to a decrease in these wastes generated by businesses.
- The long term reduction in Household and similar wastes is partly due to implementation of general policies targeted at reducing waste, including a legislative duty of care that requires all waste producers 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.
- The generation of Rubber wastes increased by 4,814 tonnes to 35,403 in 2018 (data not shown), an increase of 15.7%. It is possible this increase is associated with a change in the Waste Management Licencing Regulations (Scotland) in 2016 in which used tyres are no longer permitted to be managed at sites exempt from waste management licencing. The increase follows a 26.6% increase the previous year.

- Between 2017 and 2018 Combustion wastes generated decreased by 10,709 tonnes (50.2%). This continues a longer term trend which has seen the generation of these wastes fall 98.1% from 548,233 tonnes in 2011 to 10,609 tonnes in 2018.There was a large drop between 2015 and 2017 which corresponds with the closure of Longannet coal power station (Figure 2).

Figure 2. Scottish waste generated by waste category[1] 2011 – 2018



[1]Other comprises waste categories not mentioned individually (see Table 1 on page 3 for full list of waste categories).

Table 4. Scottish waste generated by waste category[1] 2011 - 2018

Waste Category	Year							
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Soils	3,645,768	2,533,319	3,626,817	2,881,719	3,716,878	3,660,454	4,130,085	4,291,344
Household and similar wastes	3,143,199	2,621,850	2,288,748	2,108,282	2,092,010	2,043,368	2,075,597	2,064,703
Mineral waste from construction and demolition	1,489,040	1,155,533	1,043,241	1,166,235	1,192,973	1,355,033	1,333,005	1,276,681
Vegetal wastes	622,832	699,061	794,924	780,913	907,832	919,344	935,180	899,583
Metallic wastes	544,642	462,767	503,266	473,637	535,441	440,458	530,361	478,954
Mixed and undifferentiated materials	169,869	225,972	363,260	324,221	449,953	462,024	491,139	463,827
Animal and mixed food waste	172,413	160,020	187,380	245,236	288,520	309,126	364,985	423,104
Wood wastes	176,865	243,987	287,016	317,642	282,180	210,177	220,986	190,946
Combustion wastes	548,233	499,687	457,094	427,559	411,306	119,131	21,318	10,609
Other	1,445,625	1,460,643	1,507,733	1,276,739	1,399,014	1,162,613	1,350,788	1,350,710
Total	**11,958,486**	**10,062,839**	**11,059,480**	**10,002,184**	**11,276,108**	**10,681,729**	**11,453,445**	**11,450,461**

[1]Other comprises waste categories not mentioned individually (see Table 1 on page 3 for full list of waste categories).

- Separately collected Animal and mixed food waste generated in 2018 increased by 15.9% (58,119 tonnes) from 2017, and by 145.4% (250,690 tonnes) from 2011 (Figure 3). The increase between 2017 and 2018 was due to waste from C&I sources, which increased by 25.1% (66,205 tonnes). These increases are consistent with the implementation of the Waste (Scotland) Regulations 2012 that requires businesses in Scotland to source segregate materials, including food waste in urban areas, and requires local authorities to provide a minimum food waste recycling service to householders.

Figure 3. Separately collected Animal and mixed food waste generated by waste source 2011 – 2018

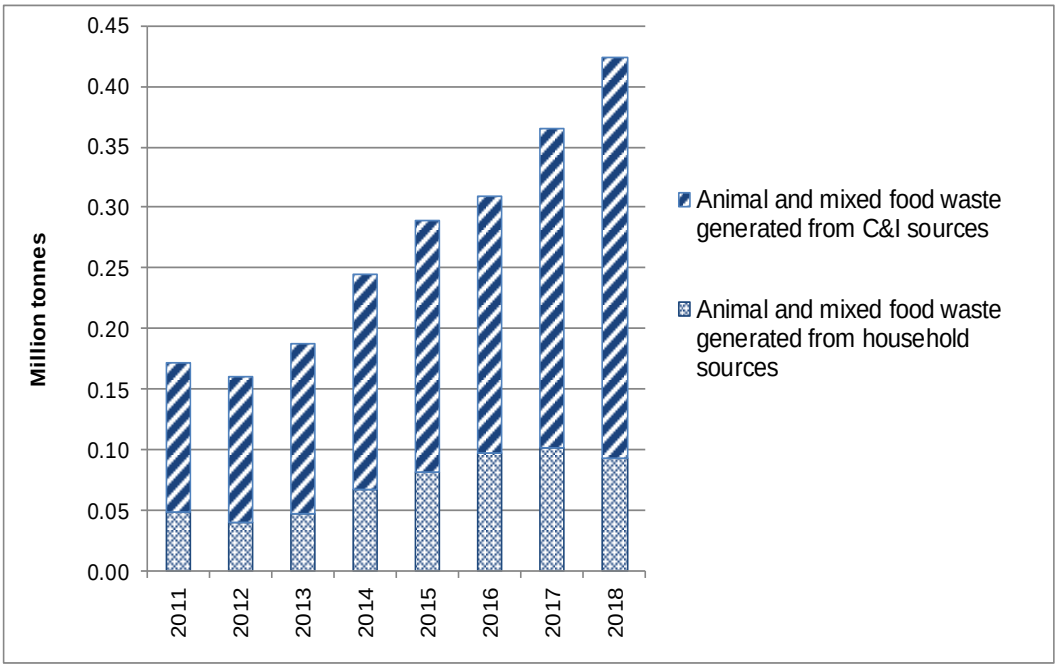


Table 5. Separately collected Animal and mixed food waste generated by waste source 2011 - 2018

Year	C&I (tonnes)	Household (tonnes)	Total (tonnes)
2011	123,904	48,510	**172,413**
2012	119,204	40,816	**160,020**
2013	139,871	47,509	**187,380**
2014	177,372	67,865	**245,236**
2015	206,116	82,404	**288,520**
2016	212,200	96,926	**309,126**
2017	263,582	101,402	**364,985**
2018	329,787	93,317	**423,104**

- Between 2017 and 2018 there was an increase in the generation of separately collected Paper and cardboard of 13,310 tonnes (13.5%) (Figure 4). This was due to an increase of 5,482 tonnes from C&I sources and an increase of 7,828 tonnes from household sources. The increase between 2017 and 2018 is in contrast to a longer term reduction of these wastes from 2011 levels, down 32,659 tonnes from C&I sources and 41,927 tonnes from household. Although separate data is not available for the individual paper or cardboard waste streams, the reduction in print media and increase in paperless offices are likely a contributing factor to the overall decrease in waste Paper and cardboard generated since 2011.

Figure 4. Separately collected Paper and cardboard waste generated by waste source 2011 – 2018

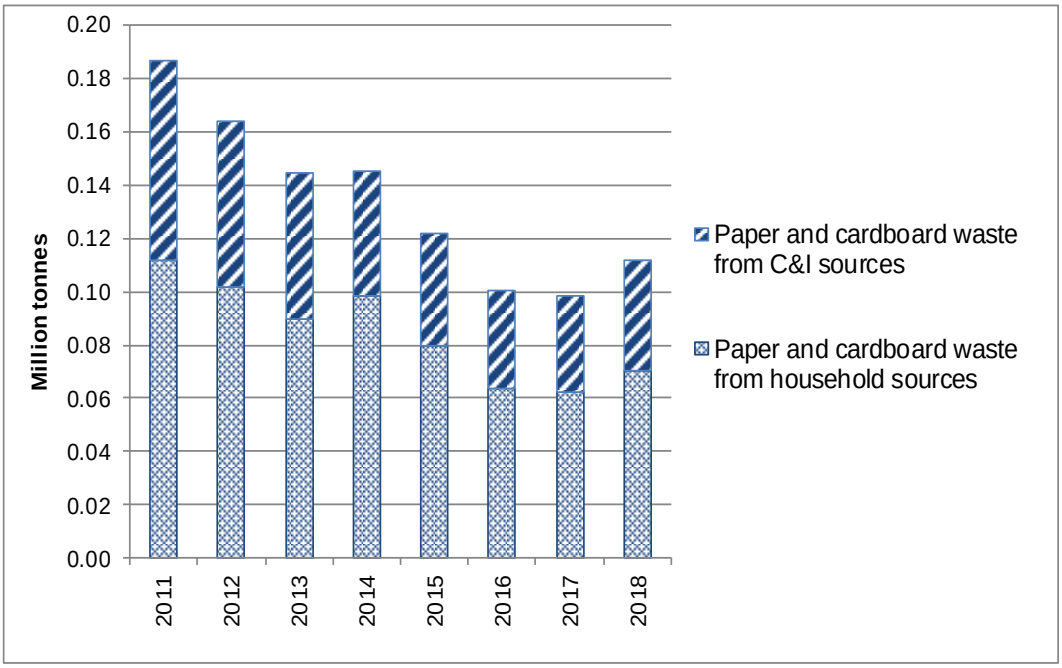


Table 6. Separately collected Paper and cardboard waste generated by waste source 2011 - 2018

Year	C&I (tonnes)	Household (tonnes)	Total (tonnes)
2011	74,374	111,933	**186,307**
2012	62,706	101,394	**164,100**
2013	54,630	89,630	**144,259**
2014	47,170	98,105	**145,275**
2015	41,924	79,613	**121,537**
2016	36,782	63,817	**100,599**
2017	36,233	62,178	**98,411**
2018	41,714	70,006	**111,720**

- The total quantity of hazardous waste generated in Scotland was 447,917 tonnes in 2018, a decrease of 88,518 tonnes (16.5%) compared with 2017 (Figure 5). As in previous years, most of the hazardous waste generated in 2018 (82.6%, 369,886 tonnes) was from C&I sources. Since 2011, there has been a decrease of 157,038 tonnes (26.0%) in the generation of Scottish hazardous waste, with the reduction occurring mainly from C&D sources.
- In 2018, the main category of hazardous waste generated was Chemical wastes (105,654 tonnes, 23.6% of all hazardous waste), primarily waste with EWC code 13 05 07, oil / water wastes from offshore oil activities in the north of Scotland. Other significant contributors to the hazardous wastes generated were other mineral wastes (52,223 tonnes, 11.7%) and Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes) (48,900 tonnes, 10.9%) - Figure 6.

Figure 5. Scottish hazardous waste generated by waste source 2011 – 2018

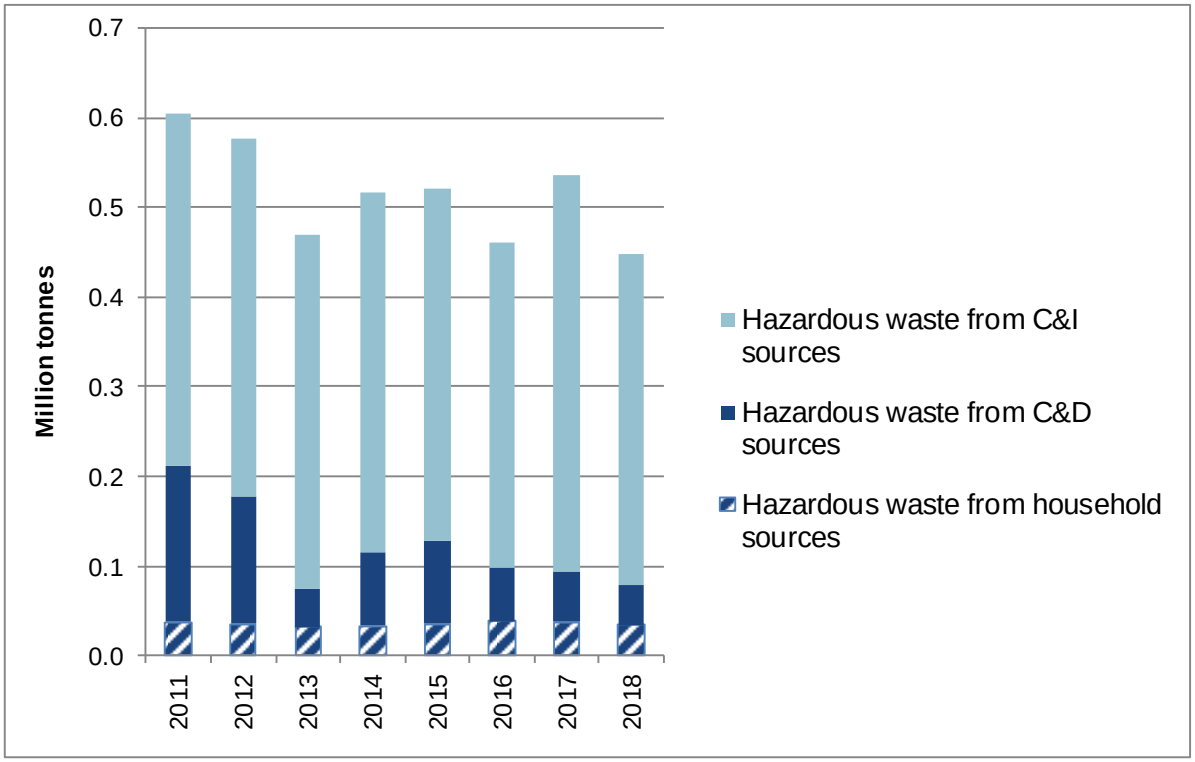
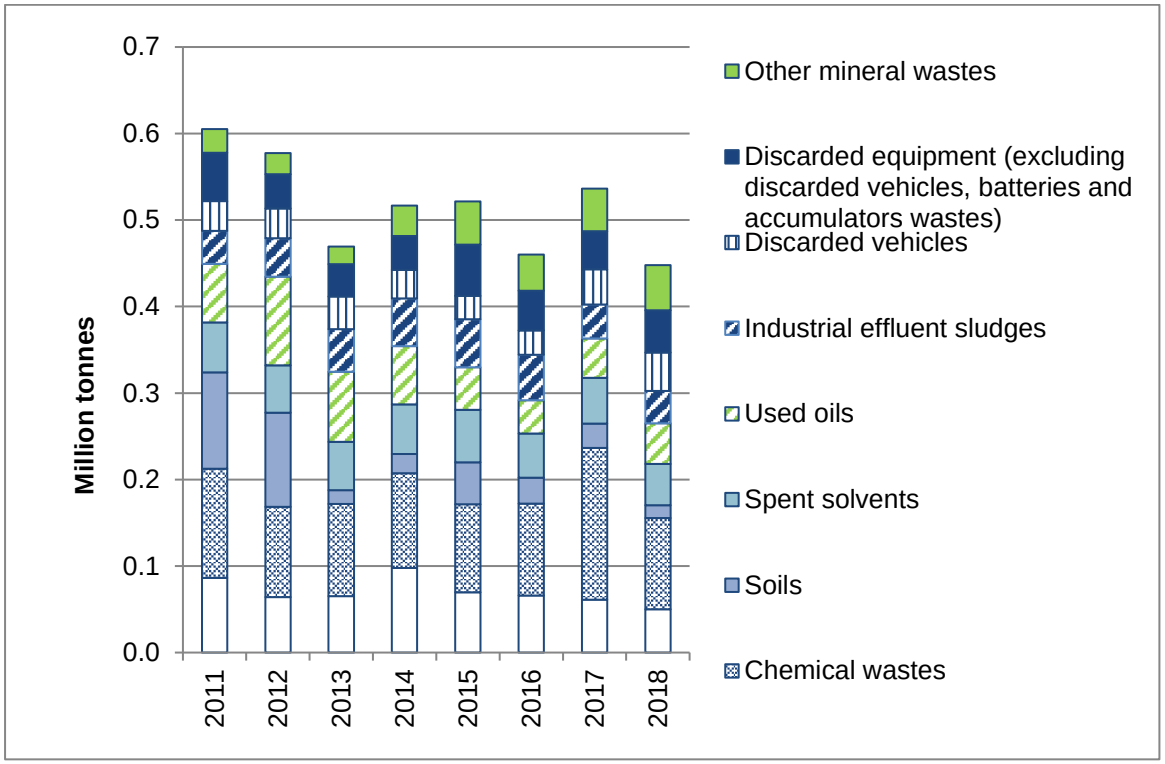


Table 7. Scottish hazardous waste generated by waste source 2011 - 2018

Year	C&I (tonnes)	C&D (tonnes)	Household (tonnes)	Total (tonnes)
2011	392,564	175,067	37,324	**604,955**
2012	400,600	141,755	35,000	**577,354**
2013	395,309	41,746	32,367	**469,422**
2014	402,342	81,583	32,861	**516,785**
2015	393,520	92,871	34,941	**521,331**
2016	360,946	60,077	38,876	**459,899**
2017	443,228	55,520	37,686	**536,435**
2018	369,886	43,733	34,298	**447,917**

Figure 6. Scottish hazardous waste generated by waste category[1] 2011 – 2018



Other comprises waste categories not mentioned individually (see Table 1 on page 3 for full list of waste categories).

Table 8. Scottish hazardous waste generated by waste category[1] 2011 - 2018

Waste Type	Year							
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Chemical wastes	126,115	104,183	106,617	109,408	101,927	106,253	175,332	105,654
Other mineral wastes	27,346	24,492	20,389	35,278	49,902	41,505	49,504	52,223
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	55,803	39,639	37,321	39,236	58,912	45,856	43,992	48,900
Spent solvents	57,857	54,630	55,985	57,379	60,722	50,891	52,876	47,458
Used oils	67,617	102,565	81,070	67,440	49,180	38,404	45,481	47,210
Discarded vehicles	34,432	34,396	38,003	32,811	27,375	28,419	40,455	44,235
Industrial effluent sludges	38,104	44,350	48,995	55,117	55,217	52,596	39,468	37,414
Soils	111,458	108,851	15,686	22,204	48,402	29,931	28,079	14,773
Other [1]	86,225	64,248	65,356	97,914	69,694	66,044	61,249	50,050
Total	**604,955**	**577,354**	**469,422**	**516,785**	**521,331**	**459,899**	**536,435**	**447,917**

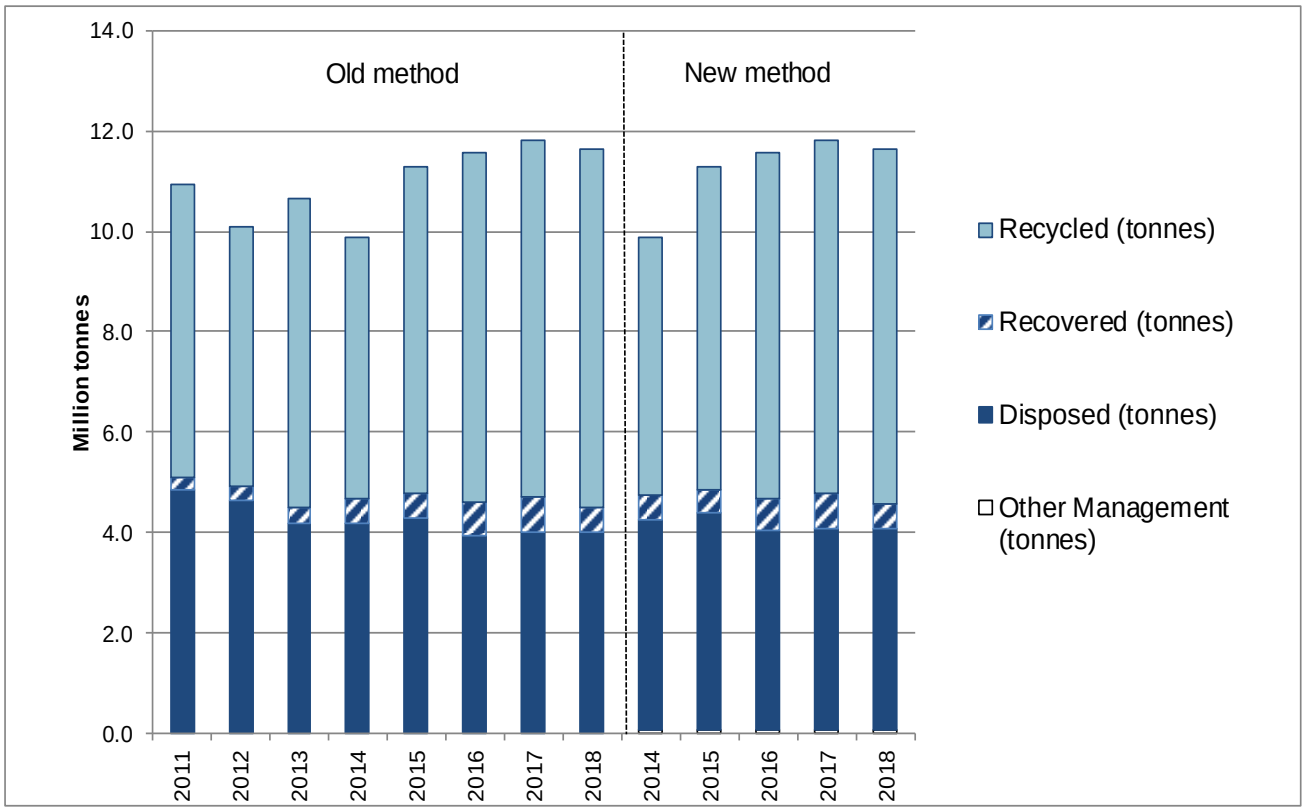
[1]Other comprises waste categories not mentioned individually (see Table 1 on page 3 for full list of waste categories).

Waste Managed

- In 2018, the total amount of Scottish waste recorded as recycled, recovered, disposed, or managed by other management[2] was 11.65 million tonnes which was 0.20 million tonnes (1.8%) more than the amount of waste generated (11.45 million tonnes). 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 the difference between waste generated and waste managed is less variable, ranging from 8.6% more waste generated than managed in 2011 to 3.1% less in 2017. For further information, please refer to the quality report on SEPA's website.
- 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 2018 there were only 2,293 tonnes of Scottish waste generated in the Sorting residues category. However, in the same period there were 0.96 million tonnes of Sorting residues recorded as managed, primarily disposed by landfill (0.72 million tonnes), disposed by incineration (114,836 tonnes), and recovered by incineration (121,804 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.

[2] Other management comprises waste composted or anaerobically digested at facilities not accredited to the BSI PAS 100 or PAS 110 standard.

Figure 7. Scottish waste managed[1, 2, 3 4] in 2011 – 2018



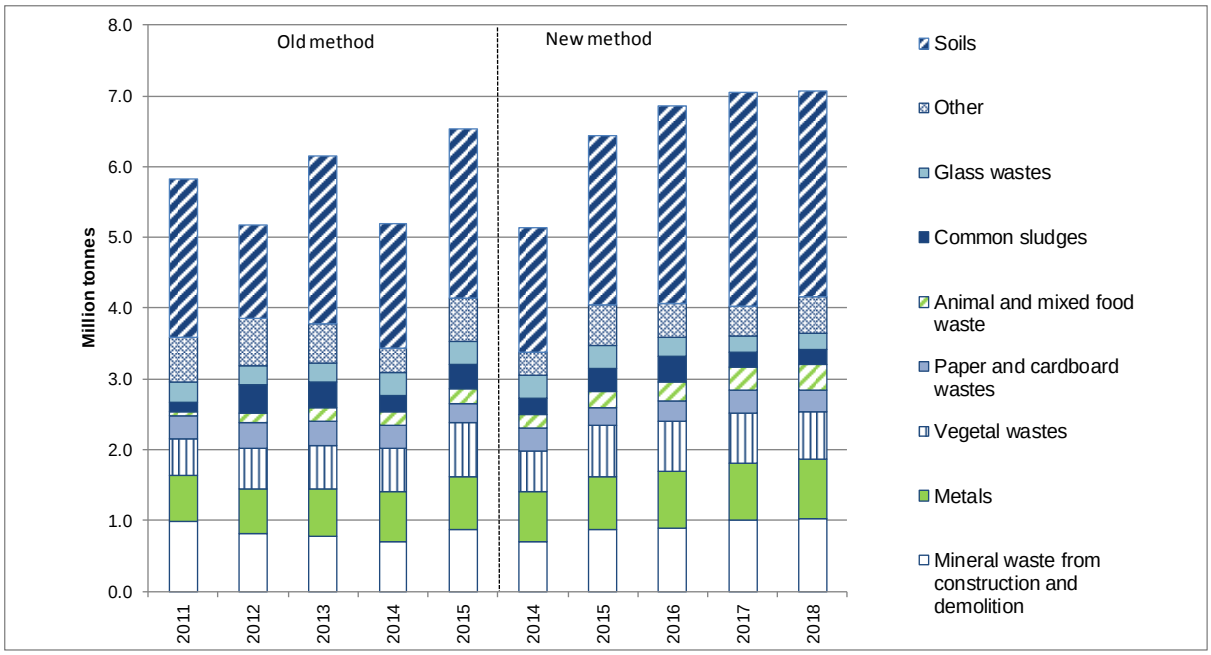
[1]Recycled includes waste recycled, reused and waste composted. Disposal includes incineration by disposal and waste landfilled. Recovered includes incineration with energy recovery and co-incineration.
[2]Waste managed is final management and excludes interim facilities.
[3]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted was included in the recycling figures regardless of PAS quality standard.
[4]Other management comprises compost produced at non-PAS certified composting or anaerobic digestion plants.

Table 9. Scottish waste managed[1, 2, 3 4] in 2011 - 2018

Year	Recycled (tonnes)	Recovered (tonnes)	Disposed (tonnes)	Other Management (Tonnes)	Total (Tonnes)
2011 - Old Method	5,822,825	269,479	4,842,589	0	10,934,893
2012 - Old Method	5,172,427	278,470	4,632,242	0	10,083,139
2013 - Old Method	6,151,321	333,435	4,173,084	0	10,657,840
2014 - Old Method	5,197,057	489,553	4,190,809	0	9,877,419
2015 - Old Method	6,526,456	474,332	4,299,417	0	11,300,205
2016 - Old Method	6,932,625	663,925	3,955,120	0	11,551,670
2017 - Old Method	7,101,783	703,765	4,005,282	0	11,810,830
2018 - Old Method	7,156,247	495,201	4,001,394	0	11,652,841
2014 - New Method	5,134,438	489,553	4,190,809	62,619	9,877,419
2015 - New Method	6,445,063	474,332	4,299,417	81,393	11,300,205
2016 - New Method	6,861,194	663,925	3,955,120	71,431	11,551,670
2017 - New Method	7,042,462	703,765	4,005,282	59,321	11,810,830
2018 - New Method	7,070,035	495,201	4,001,394	86,212	11,652,841

[1]Recycled includes waste recycled, reused and waste composted. Disposal includes incineration by disposal and waste landfilled. Recovered includes incineration with energy recovery and co-incineration.
[2]Waste managed is final management and excludes interim facilities.
[3]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted was included in the recycling figures regardless of PAS quality standard.
[4]Other management comprises compost produced at non-PAS certified composting or anaerobic digestion plants.

Figure 8. Scottish waste recycled[1, 2, 3] by waste category 2011 – 2018



[1]Recycled includes waste recycled, reused and waste composted. Disposal includes incineration by disposal and waste landfilled. Recovered includes incineration with energy recovery and co-incineration.

[2]Waste managed is final management and excludes interim facilities.

[3]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted or anaerobically digested that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted or anaerobically digested was included in the recycling figures regardless of PAS quality standard.

Table 10. Scottish waste recycled[1, 2, 3] by waste category 2011 –2018

Waste Category	Year									
	Old Method					New Method				
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Soils	2,228,954	1,323,499	2,369,425	1,754,540	2,393,660	1,754,540	2,393,660	2,787,153	3,022,056	2,903,935
Glass wastes	279,404	256,353	272,866	312,416	327,981	312,416	327,981	268,406	229,294	238,594
Common sludges	130,566	403,278	373,788	237,614	328,751	237,614	328,751	351,840	221,991	215,230
Animal and mixed food waste	70,670	141,753	176,633	192,957	224,122	187,537	220,232	281,744	329,788	351,906
Paper and cardboard wastes	326,880	357,970	345,563	317,015	254,660	317,014	254,652	285,385	323,742	310,366
Vegetal wastes	513,955	583,387	611,754	607,081	772,058	574,855	730,417	708,247	705,840	672,092
Metals	649,571	618,286	682,080	722,680	741,416	722,680	741,416	788,164	791,989	844,370
Mineral waste from construction and demolition	983,207	822,194	769,273	691,044	874,064	691,044	874,064	898,760	1,011,659	1,017,367
Other	639,618	665,707	549,937	361,711	609,744	336,738	573,891	491,495	406,102	516,175
Total	**5,822,825**	**5,172,427**	**6,151,321**	**5,197,057**	**6,526,456**	**5,134,438**	**6,445,063**	**6,861,194**	**7,042,462**	**7,070,035**

[1]Recycled includes waste recycled, reused and waste composted. Disposal includes incineration by disposal and waste landfilled. Recovered includes incineration with energy recovery and co-incineration.

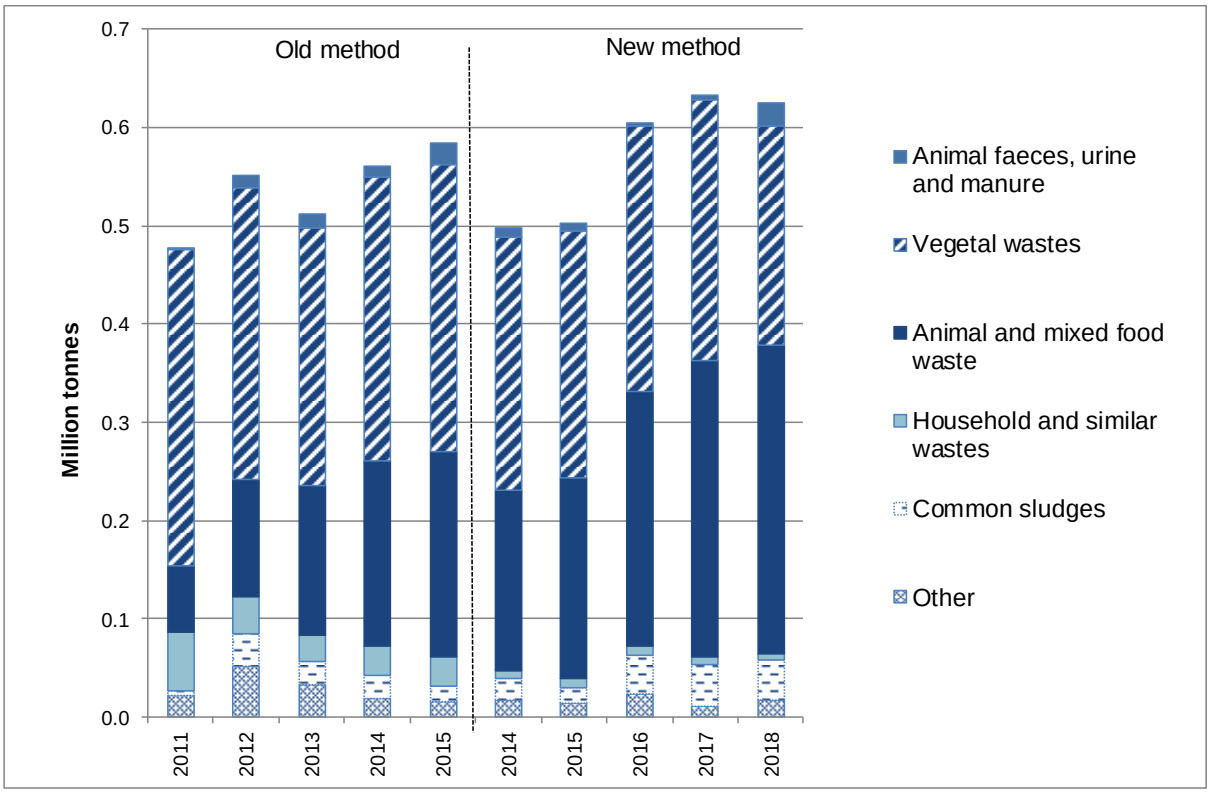
[2]Waste managed is final management and excludes interim facilities.

[3]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted or anaerobically digested that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted or anaerobically digested was included in the recycling figures regardless of PAS quality standard.

Waste Recycled

- For the 2018 calendar year, the total tonnage of waste recycled was 7.07 million tonnes, an increase of 27,572 tonnes (0.4%) from the 7.04 million tonnes recycled in 2017.
- In 2018, the waste category with the largest amount recycled was Soils (2.90 million tonnes, 41.1% of all waste recycled) followed by Mineral waste from construction and demolition (1.02 million tonnes, 14.4%) (Figure 8).
- Excluding Soils, there was an increase in recycling of 145,694 tonnes (3.6%) from 2017, which included Metals (increase of 52,381 tonnes, 6.6%) and Animal and mixed food waste (increase of 22,117 tonnes, 6.7%).
- In 2018, there were 625,889 tonnes of organic wastes recycled in composting or anaerobic digestion facilities (Figure 9). This is a decrease of 7,990 tonnes (1.3%) from the 633,879 tonnes of organic wastes recycled by composting or digestion in 2017 The long-term increasing trend in food waste recycling from 2011 to 2018 corresponds to the roll-out of separate food waste collections under the Waste Scotland Regulations (2012).
- In 2018, the tonnage of Animal and mixed food waste recycled by composting was 25.6% less than the tonnage of this waste generated (423,104 tonnes). The difference is due in part to some of the Animal and mixed food waste generated, such as sludges from washing and cleaning of fish processing waste, being disposed as a mixed waste.

Figure 9. Scottish organic waste recycled[1] by composting or anaerobic digestion 2011 - 2018



[1]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted or anaerobically digested that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted or anaerobically digested were included in the recycling figures regardless of PAS quality standard.

Table 11. Scottish organic waste recycled[1] by composting or anaerobic digestion by waste category 2011 - 2018

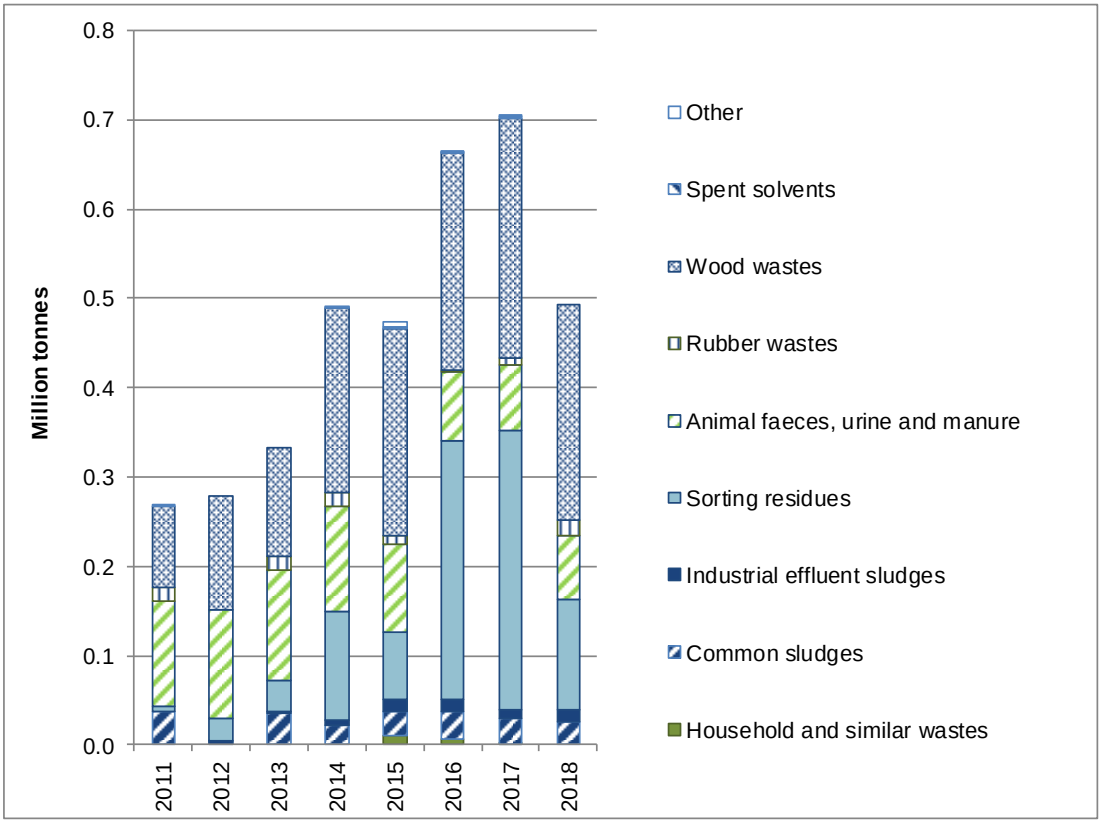
Waste Category	Year									
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 - Old Method (tonnes)	2015 - Old Method (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Vegetal wastes	321,721	296,333	261,760	289,370	293,020	257,145	251,379	270,249	264,742	222,713
Animal and mixed food waste	66,501	119,496	152,469	188,436	209,164	183,015	205,274	259,734	302,829	314,845
Common sludges	5,160	33,256	23,204	23,351	15,665	23,351	15,665	39,447	41,913	41,504
Household and similar wastes	60,593	37,352	26,812	30,255	29,981	7,503	9,365	8,414	7,569	4,847
Animal faeces, urine and manure	150	12,738	15,201	9,727	21,368	9,615	7,552	3,653	5,574	24,516
Other	21,518	52,339	33,066	18,984	15,229	16,874	13,800	24,118	11,251	17,464
Total	**475,643**	**551,514**	**512,513**	**560,122**	**584,427**	**497,504**	**503,034**	**605,614**	**633,879**	**625,889**

[1]From 2014, the total waste recycled was measured using a new methodology (New Method), which excluded figures for waste composted or anaerobically digested that did not reach the quality standards set by PAS 100/110. In the Old Method, all waste composted or anaerobically digested were included in the recycling figures regardless of PAS quality standard

Waste Recovered By Incineration

- In 2018, there were 495,201 tonnes of waste recovered by incineration with energy recovery or co-incineration. This is a decrease of 208,564 tonnes (29.6%) from 2017. Most of the decrease was due to Sorting residues managed outside Scotland which decreased from 313,941 tonnes in 2017 to 121,804 tonnes in 2018 (a reduction of 61.2%). The longer term trend is of an increase in waste recovery, with an increase of 225,722 tonnes (83.8%) of waste recovered since 2011.
- The largest waste type recovered in 2018 was Wood wastes (242,103 tonnes, 48.9% of all waste recovered), followed by Sorting residues (121,804 tonnes, 24.6%). There was a large increase in the recovery of Rubber wastes (9,470 tonnes, 117.8%). This increase is associated with a change in the Waste Management Licencing Regulations (Scotland) in 2016 in which used tyres are no longer permitted to be managed at sites exempt from waste management licencing.

Figure 10. Scottish waste recovered by incineration[1] by waste category 2011 - 2018



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

Table 12. Scottish waste recovered by incineration[1] by waste category 2011 – 2018

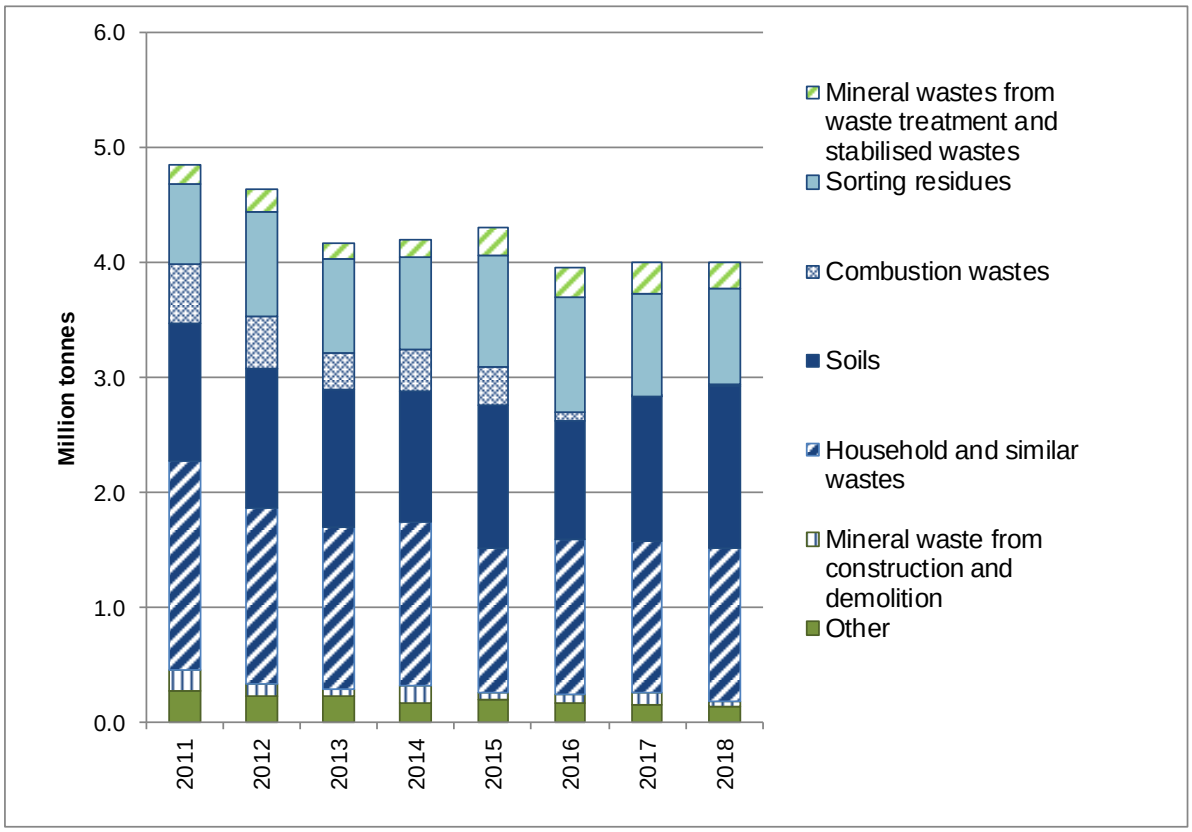
Waste Category	Year							
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Wood wastes	90,616	127,621	122,523	206,895	233,616	243,311	268,843	242,103
Animal faeces, urine and manure	119,309	120,509	123,748	117,431	97,731	75,901	71,819	71,563
Sorting residues	5,192	26,089	33,759	121,214	75,949	290,697	313,941	121,804
Common sludges	37,200	0	36,060	22,430	28,417	30,129	29,278	26,752
Industrial effluent sludges	0	4,252	2,319	5,295	12,985	12,929	8,605	13,492
Rubber wastes	15,235	0	15,025	16,183	8,594	2,940	8,039	17,509
Household and similar wastes	0	0	0	0	9,749	7,209	1,223	0
Spent solvents	0	0	0	0	565	491	1,635	645
Other	1,927	0	0	104	6,727	318	382	1,333
Total	**269,479**	**278,470**	**333,435**	**489,553**	**474,332**	**663,925**	**703,765**	**495,201**

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

Waste Disposed

- In 2018, there were 4.0 million tonnes of waste disposed by landfill or incineration without energy recovery. This is a small decrease of 3,889 tonnes (0.1%) from 2017. This is consistent with the longer term trend of a decrease in waste disposal, with a decrease of 841,195 tonnes (17.4%) of waste disposed compared with 2011.
- The waste type with the largest amount disposed in 2018 was Soils (1.41 million tonnes, 35.3% of all waste disposed) followed by Household and similar wastes (1.34 million tonnes, 33.4%) and Sorting residues (836,793 tonnes, 20.9%) as shown in Figure 11.

Figure 11. Scottish waste disposed[1] by waste category 2011 – 2018



[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.

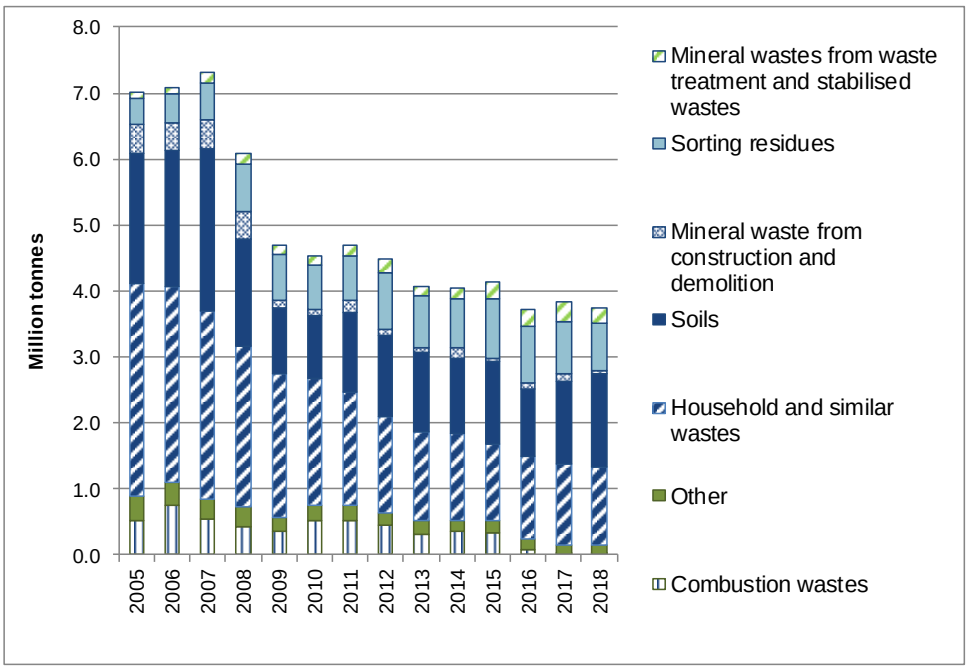
- Scottish waste disposed to landfill in 2018 was 3.74 million tonnes, a decrease of 89,022 tonnes (2.3%) from the 3.83 million tonnes landfilled in 2017. This is a continuation of the longer term trend of decreasing disposal to landfill (Figure 12), with 3.27 million tonnes (46.7%) less waste disposed to landfill in 2018 than in 2005. Excluding Soils, the amount of Scottish waste disposed to landfill in 2018 was 247,789 tonnes (9.6%) less than that landfilled in 2017.
- The majority (99.0%) of waste landfilled in Scotland in 2018 was of Scottish origin. This document reports on the Scottish waste that was managed by disposal to landfill, whether landfilled inside or outwith Scotland. For more information on the trends and commentary for waste that was landfilled in Scotland in 2018, including waste generated outwith Scotland, please see the Waste Landfilled in Scotland 2018 statistics.

Table 13. Scottish waste disposed[1] by waste category 2011 – 2018

Waste Category	Year							
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Household and similar wastes	1,817,999	1,528,441	1,416,073	1,420,395	1,264,155	1,346,169	1,322,782	1,336,286
Soils	1,202,936	1,217,230	1,198,189	1,132,942	1,239,766	1,026,247	1,255,252	1,414,032
Sorting residues	697,779	910,000	822,253	800,091	973,624	1,000,096	889,964	836,793
Mineral wastes from waste treatment and stabilised wastes	156,868	191,285	134,874	145,413	233,680	250,375	278,938	231,320
Mineral waste from construction and demolition	178,606	95,700	60,564	152,156	61,765	82,855	97,834	36,961
Combustion wastes	511,178	453,593	318,714	364,589	333,996	83,765	1,385	690
Other	277,222	235,993	222,417	175,223	192,431	165,613	159,127	145,312
Total	**4,842,589**	**4,632,242**	**4,173,084**	**4,190,809**	**4,299,417**	**3,955,120**	**4,005,282**	**4,001,394**

[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.

Figure 12. Scottish waste disposed to landfill by waste category 2005 - 2018



- As shown in Figure 13, there were 60,118 tonnes of Scottish Hazardous waste disposed to landfill in 2018, which amounts to 1.6% of all Scottish waste landfilled. This was an increase of 9,709 tonnes (19.3%) compared to 2017. The bulk of Scottish hazardous waste landfilled was Other mineral wastes, which primarily comprises insulating materials such as asbestos (22,452 tonnes, 37.3% of all hazardous waste landfilled), followed by Mineral wastes from waste treatment and stabilised wastes (20,375 tonnes, 33.9%). The drop in hazardous waste soils landfilled between 2012 and 2013 (and subsequently) is primarily due to variability in the C&D sector, which fluctuates year on year with construction economic outputs and major projects in the country.

Figure 13. Scottish hazardous waste disposed to landfill by waste category 2005 – 2018

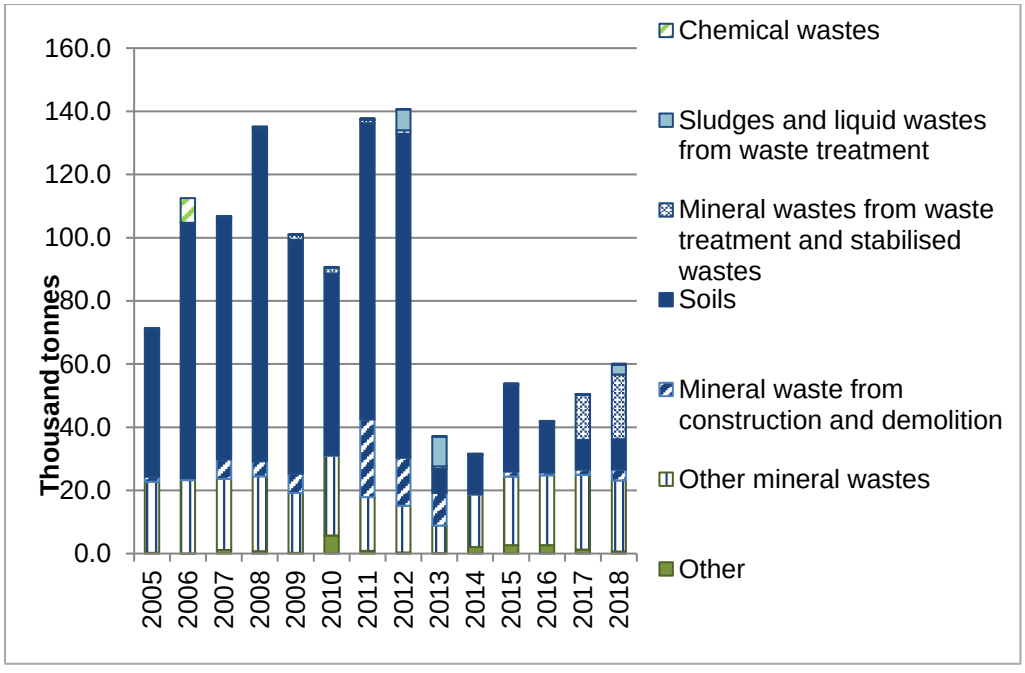


Table 14. Scottish waste disposed to landfill by waste category 2005 - 2018

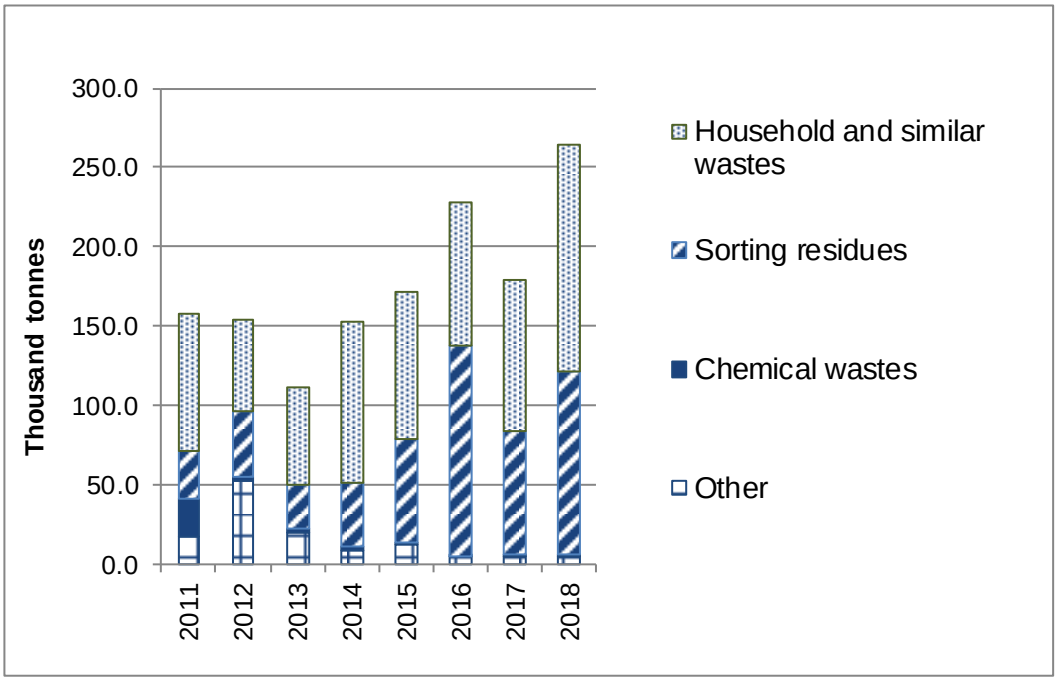
Waste Category	Year													
	2005 (tonnes)	2006 (tonnes)	2007 (tonnes)	2008 (tonnes)	2009 (tonnes)	2010 (tonnes)	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Household and similar wastes	3,211,792	2,971,314	2,857,236	2,438,260	2,191,014	1,938,768	1,730,846	1,470,708	1,354,709	1,317,644	1,172,084	1,255,523	1,228,146	1,193,340
Soils	1,965,986	2,064,745	2,464,810	1,619,925	999,198	943,141	1,202,936	1,217,230	1,198,189	1,132,942	1,239,766	1,026,247	1,255,252	1,414,019
Sorting residues	390,914	441,827	560,868	717,022	708,176	677,837	668,129	868,404	794,755	760,525	907,841	868,012	811,513	721,957
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	250,375	278,938	231,320
Mineral waste from construction and demolition	456,289	411,431	426,459	413,372	100,578	97,696	178,606	95,700	60,527	150,915	61,746	82,855	97,834	36,881
Combustion wastes	532,420	758,621	555,924	436,725	353,903	521,327	511,178	453,593	318,714	364,589	333,996	83,765	1,385	1,385
Other	370,010	341,992	288,818	292,988	209,739	221,232	236,162	181,419	199,870	165,419	179,224	160,454	153,401	138,545
Total	**7,006,875**	**7,078,197**	**7,319,077**	**6,094,926**	**4,687,039**	**4,543,226**	**4,684,726**	**4,478,338**	**4,061,638**	**4,037,447**	**4,128,338**	**3,727,231**	**3,826,469**	**3,737,448**

Table 15. Scottish hazardous waste disposed to landfill by waste category 2005 - 2018

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)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Soils	46,766	80,851	76,120	104,669	73,987	57,530	93,805	102,497	7,509	12,147	27,210	15,859	9,424	9,642
Other mineral wastes	22,537	23,115	22,538	23,753	18,960	25,284	17,027	14,777	8,710	16,609	21,721	22,140	23,518	22,452
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	890	1,790	3,473
Mineral wastes from waste treatment and stabilised wastes	191	15	535	661	1,535	1,754	1,033	1,101	845	341	402	178	14,314	20,375
Sludges and liquid wastes from waste treatment	0	0	205	428	137	0	357	6,596	9,446	3	120	128	45	3,094
Chemical wastes	3	7,842	149	276	115	363	128	36	34	250	34	80	17	382
Other	245	85	1,149	746	243	5,706	850	378	112	2,098	2,652	2,657	1,301	699
Total	**71,328**	**112,534**	**106,877**	**135,257**	**101,087**	**90,776**	**137,782**	**140,594**	**37,075**	**31,641**	**53,776**	**41,931**	**50,408**	**60,118**

- Scottish waste disposed by incineration without energy recovery in 2018 was 263,946 tonnes, an increase of 85,133 tonnes (47.6%) from the 178,813 tonnes disposed in 2017. The largest waste category disposed by incineration without energy recovery in 2018 was Household and similar wastes (142,946 tonnes, 54.2% of total) and this category increased by 48,310 tonnes (51.0%) between 2017 and 2018. The second largest category disposed by incineration without energy recovery was Sorting residues (114,836 tonnes, 43.5%) and this category increased by 36,385 tonnes (46.4%) between 2017 and 2018.

Figure 14. Scottish waste disposed by incineration[1] by waste category 2011 – 2018



[1]Waste disposed by incineration comprises 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 16. Scottish waste disposed by incineration[1] by waste category 2011 – 2018

Waste Category	Year							
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	2018 (tonnes)
Household and similar wastes	87,153	57,733	61,364	102,750	92,071	90,646	94,636	142,946
Sorting residues	29,650	41,596	27,499	39,566	65,783	132,084	78,451	114,836
Chemical wastes	23,899	2,463	2,596	2,270	921	835	829	1,622
Other	17,161	52,112	19,987	8,775	12,305	4,324	4,897	4,542
Total	**157,863**	**153,904**	**111,447**	**153,362**	**171,079**	**227,889**	**178,813**	**263,946**

[1]Waste disposed by incineration comprises waste inputs to incineration facilities that have not been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.

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 the most accurate estimates 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 2017 publication include:

Paper and card recycled: It has been understood for some time that there are “gaps” in the reporting data. This is due to situations such as, waste data from simple exemptions not being required to be reported, and waste being sent directly outwith Scotland without first passing through a waste management site. One of these gaps identified was paper and card recycled. Comparison with the previous WFAS publications and WasteDataFlow data indicated that the paper and card recycled reported through WFAS was likely to be an underestimate. In particular it was speculated that data gaps may be present for paper and card recycled from commercial premises.

SEPA recently started collecting data for Annex VII (“green list”) waste exports. While this dataset should be treated with caution, being paper based returns of variable quality, nonetheless it provides the best estimate we have to date for the export of paper and card wastes. We therefore now use the Annex VII waste shipment data to estimate paper and card exported for recycling. In 2018 there was 147,534 tonnes of paper and card exported for recycling in Annex VII returns. There were only 13,000 tonnes recorded as exported overseas in SEPA site returns, indicating that the bulk of the Annex VII data significantly fills a data gap and suggesting that the majority of this waste stream is exported without first being treated within Scotland.

As the Annex VII data is only available from 2016 onwards, the 2016 Annex VII data was used to populate the 2011 – 2015 data.

WFAS generated and WFAS Managed: Minor changes in these data are due to revised site returns by waste operators since the last reporting period, and to minor corrections to the tools used to generate the datasets. Of note is the change in waste recycling for 2014. Recycling data for mineral waste from construction and demolition activities has been revised downwards from 831,800 tonnes to 691,044, a reduction of 2.9%. Similarly, the recycling of waste soils have been revised downwards from 1.96 million tonnes to 1.75 million tonnes, a reduction of 4.3%. This has resulted in an overall reduction in recycling in 2014 from 5.39 million tonnes to 5.13 million tonnes.

Table 17. Revisions to Scottish Paper and card waste recycled 2011 – 2017 from previous publication

Year	Paper and card recycled (tonnes)	
	Original	Revised
2011	228,696	326,880
2012	259,492	357,970
2013	247,085	345,563
2014	220,910	317,014
2015	200,758	254,652
2016	213,861	285,385
2017	213,431	323,742

Table 18. Revisions to WFAS Generated 2011 - 2017 from Previous Publication

Year	C&I (tonnes)		C&D (tonnes)		Household (tonnes)	
	Original	Revised	Original	Revised	Original	Revised
2011	4,188,086	4,156,052	5,214,153	5,195,676	2,606,759	2,606,759
2012	3,771,714	3,764,847	3,800,835	3,796,997	2,500,995	2,500,995
2013	3,910,526	3,857,040	4,797,260	4,789,809	2,412,706	2,412,630
2014	3,421,330	3,369,844	4,126,921	4,172,782	2,459,559	2,459,558
2015	3,733,303	3,714,681	5,102,818	5,092,646	2,468,800	2,468,781
2016	3,265,893	3,154,992	5,020,685	5,027,759	2,498,981	2,498,978
2017	3,335,650	3,399,736	6,021,169	5,592,888	2,460,772	2,460,820

Table 19. Revisions to Scottish Waste from all sources managed 2011 - 2017 from Previous Publication

Year	Recycled (tonnes)		Recovered (tonnes)		Disposed (tonnes)		Other Management (tonnes)		Total (tonnes)	
	Original	Revised	Original	Revised	Original	Revised	Original	Revised	Original	Revised
2011	5,764,912	5,822,825	269,479	269,479	4,842,589	4,842,589	0	0	10,876,980	10,934,893
2012	5,073,948	5,172,427	278,470	278,470	4,632,242	4,632,242	0	0	9,984,660	10,083,139
2013	6,067,069	6,151,321	333,435	333,435	4,173,084	4,173,084	0	0	10,573,588	10,657,840
2014	5,393,644	5,134,438	489,553	489,553	4,190,809	4,190,809	62,619	62,619	10,136,624	9,877,419
2015	6,339,364	6,445,063	474,332	474,332	4,299,417	4,299,417	81,393	81,393	11,194,506	11,300,205
2016	6,789,670	6,861,194	663,925	663,925	3,956,390	3,955,120	71,431	71,431	11,481,416	11,551,670
2017	6,931,865	7,042,462	761,581	703,765	4,007,991	4,005,282	58,616	59,321	11,760,053	11,810,830

[1] The recycled figures for 2011 - 2013 data include composted wastes that do not reach the quality standards set by PAS 100/110

Methodology

Data is taken from licenced and permitted waste site returns and exempt activity 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 do not contribute to the waste composted figures. For 2016, such wastes have been considered to be subject to other management, outside of recycling, recovery or disposal. 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 countries within the UK may be based on alternative calculation methodologies and as such the figures may not be directly comparable.

As the tonnages of waste managed do not equal the tonnages of waste generated, the recycling and landfill rates referred to in this document (see Table 2 on page 4) are all relative to the total waste managed rather than waste generated. For further information, please refer to the quality report on SEPA's website.

Glossary of terms

Annex VII waste: Non-hazardous waste that can be shipped for recovery within Organisation for Economic Co-operation and Development (OECD) countries. Also called Green list wastes. The export and import of these wastes is regulation under Annex VII of the Transfrontier Frontier Waste Shipment Regulations (TFS regulations).

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 wastes recycled that do not meet this standard have not been included in recycling statistics from 2014 onwards (see Old Method and New Method).

Co-incineration facility – 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. Note that co-incineration facilities are not eligible to qualify for R1 energy recovery efficiency as specified in the EU Waste Framework Directive.

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

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

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)

New Method – the methodology used from 2014 onwards to calculate the total waste recycled which does not include waste composted and/or anaerobically digested that did not reach the quality standards set by PAS 100/110.

Old Method – the methodology used until 2014 to calculate the total waste recycled which included all waste composted and/or anaerobically digested regardless of PAS quality standard.

Other Management – waste managed by methods outside of recycling, recovery or disposal. For 2016 this comprised exclusively waste composted at facilities not accredited to the BSI PAS 100/110 standard.

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

Waste disposed - 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.

Waste generated - is waste that directly arises from Scottish business' and households during the reporting year. C&I waste generated are estimated using data from licensed/permitted site returns and complex exempt activity return. C&D waste generated are estimated using data from licensed/permitted site returns, complex exempt activity returns and aggregate survey data. Household waste generated is taken from all 32 Scottish local authority returns using the web-based reporting tool WasteDataFlow (WDF). Waste generated 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 disposed by incineration – waste inputs to incineration facilities that have not been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.

Waste landfilled –includes waste from all sources that is disposed of to landfill sites instead of being recycled or recovered. This includes incinerator ash, plus any recycling and composting rejects that occur during collection, sorting or further treatment that are landfilled.

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

Waste recovered by incineration – waste inputs to co-incineration facilities and to incineration facilities that incinerate mixed municipal waste and have been demonstrated to meet the R1 energy recovery efficiency specified in the EU Waste Framework Directive.

Waste recycled - includes recyclable materials that have been recycled or reused and also biodegradable materials that have been composted or anaerobically 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.

WFAS – waste from all sources. This includes waste from commercial and industrial sources, construction and demolition sources and household sources.