Waste landfilled in Scotland - 2017

This release provides a summary of all waste landfilled in Scotland in calendar year 2017. It excludes Scottish waste landfilled elsewhere. Information on the methodology used to prepare this release and a definition of terms is in the methodology and glossary at the end of this document.

Key points

Waste landfilled in Scotland– 2017 calendar year

- The total amount of waste landfilled in Scotland in 2017 was 3.83 million tonnes, an increase of 90,816 tonnes (2.4%) from 2016. The increase was primarily due to an increase in the landfill of Soils, which increased by 230,748 tonnes (22.4%) from 2016.
- The amount of biodegradable municipal waste (BMW – the biodegradable component of Municipal Waste) disposed to landfill was 1.08 million tonnes, a decrease of 55,756 tonnes (4.9%) from 201657

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

Enquiries on this publication to: SEPA Communications Department: 01786 452565.

This is an Official Statistics publication. These statistics have been produced to the high professional standards defined 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: http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html.

Table 1. Hazardous and non-hazardous waste landfilled in Scotland in 2017 by waste category

Waste Category	Non hazardous waste landfilled (tonnes)	Hazardous waste landfilled (tonnes)	Total waste landfilled (tonnes)
Acid, alkaline or saline wastes	0	0	0
Animal and mixed food waste	5,667	0	5,667
Animal faeces, urine and manure	61	0	61
Batteries and accumulators wastes	0	0	0
Chemical wastes	2,584	14	2,597
Combustion wastes	220	1,165	1,386
Common sludges	2,756	0	2,756
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	214	0	214
Discarded vehicles	0	0	0
Dredging spoils	63	0	63
Glass wastes	19,429	0	19,429
Health care and biological wastes	6,523	0	6,523
Household and similar wastes	1,225,186	0	1,225,186
Industrial effluent sludges	17,201	0	17,201
Metallic wastes, ferrous	0	0	0
Metallic wastes, mixed ferrous and non-ferrous	15	0	15
Metallic wastes, non-ferrous	0	0	0
Mineral waste from construction and demolition	96,044	1,790	97,834
Mineral wastes from waste treatment and stabilised wastes	264,655	10,709	275,364
Mixed and undifferentiated materials	33,920	0	33,920
Other mineral wastes	31,157	24,671	55,828
Paper and cardboard wastes	25	0	25
Plastic wastes	2,450	0	2,450
Rubber wastes	382	0	382
Sludges and liquid wastes from waste treatment	628	45	673
Soils	1,249,281	9,424	1,258,705
Sorting residues	814,321	0	814,321
Spent solvents	0	0	0
Textile wastes	2,864	0	2,864
Used oils	0	0	0
Vegetal wastes	4,304	0	4,304
Waste containing PCB	0	0	0
Wood wastes	297	0	297
Total	**3,780,248**	**47,817**	**3,828,065**

Data and Trends

Waste Landfilled in Scotland

- In 2017, 3.83 million tonnes of waste was disposed of to landfill in Scotland across 56 waste sites. This was an increase of 90,816 tonnes (2.4%) from 2016.
- Most of the waste landfilled in Scotland in 2017 was Soils (1.26 million tonnes, 32.9% of total), Household and similar wastes (1.23 million tonnes, 32.9% of total) and Sorting residues (814,321 tonnes, 21.3% of total) as depicted in Figure 1 below.
- The waste category with the largest change in the last year was Soils, with 1.03 million tonnes landfilled in 2016 and 1.26 million tonnes landfilled in 2017, an increase of 22.4%. This follows a decrease of 215,131 tonnes from 2015 to 2016.
- The total amount of waste disposed of to landfill has generally decreased steadily between 2005 and 2017. The increase in 2017 fits within this trend (see Figure 1 below).
- The disposal of 'Household and similar wastes' to landfill fell by 61.9% from 3.21 million tonnes in 2005 to 1.23 million tonnes in 2017. This waste category includes waste generated by businesses as well as households. It also includes the refuse from regular waste collections provided by local authorities and other contractors.
- The disposal of Sorting residues to landfill increased by 99.7% from 406,512 tonnes in 2005 to 814,321 in 2017. This increase is consistent with the increased infrastructure of waste sorting facilities in Scotland such as Material Recovery Facilities. The increasing trend in disposing of sorting residues to landfill seemed to stabilise in 2012, with a 51,898 tonnes (6.0%) decrease between 2012 and 2017 (see Figure 3 and Table 2 below).
- As shown in Figure 2 below, there was 47,817 tonnes of hazardous waste disposed of to landfill in Scotland in 2017, which amounts to 1.2% of all waste landfilled. Just over half of the hazardous waste landfilled was Other mineral wastes (24,671 tonnes, 52% of total), which primarily comprise insulating materials such as asbestos.
- Between 2005 and 2012, soils comprised between 62% and 76% of the total hazardous waste disposed of to landfill. From 2013 onwards, that percentage had dropped to between 13% and 50% (see Figure 4 and Table 3 below). This change corresponds to the removal of a landfill tax exemption in 2012 for disposing of waste from contaminated land.

Figure 1. Waste disposed to landfill in Scotland by waste category 2005 - 2017

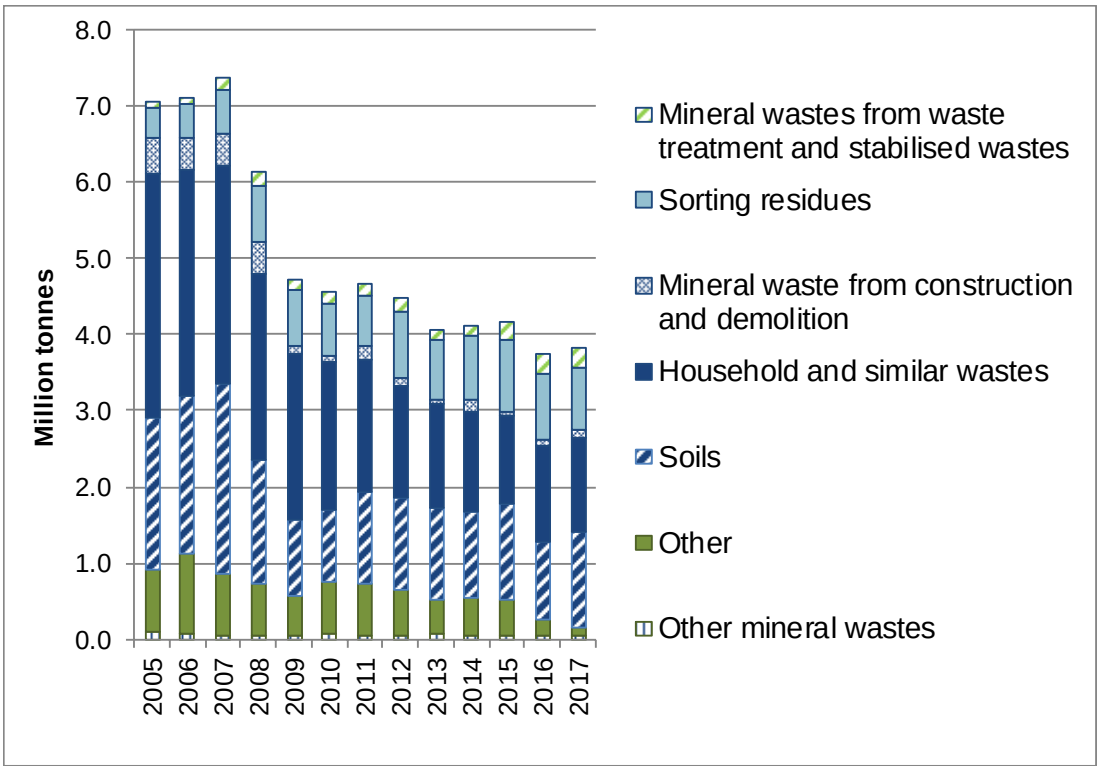


Figure 2. Hazardous waste disposed to landfill in Scotland by waste category 2005 – 2017

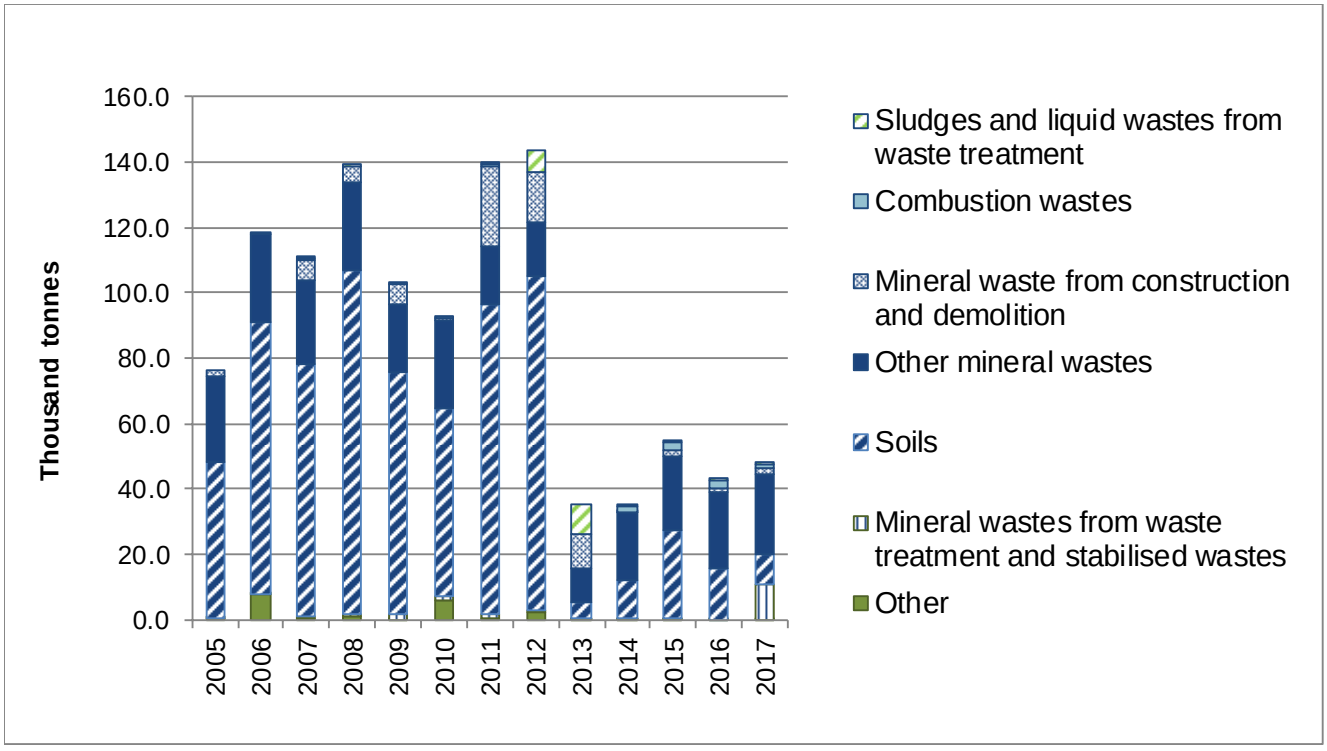


Table 2. Waste disposed to landfill in Scotland by waste category 2005 - 2017

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)
Soils	1,981,068	2,074,445	2,494,877	1,629,731	1,007,472	950,445	1,210,975	1,220,689	1,207,592	1,137,523	1,243,087	1,027,957	1,258,705
Household and similar wastes	3,212,099	2,972,577	2,848,253	2,434,477	2,184,192	1,929,466	1,726,995	1,466,308	1,351,373	1,313,490	1,166,258	1,245,786	1,225,186
Sorting residues	407,809	445,095	570,575	738,220	723,364	683,935	668,476	866,219	796,418	833,129	945,509	867,345	814,321
Mineral wastes from waste treatment and stabilised wastes	79,464	88,267	164,900	176,634	124,431	142,952	157,486	189,298	132,802	145,233	233,680	250,393	275,364
Mineral waste from construction and demolition	456,289	411,666	426,597	413,527	100,690	97,703	178,670	95,702	60,306	150,915	61,746	82,855	97,834
Other mineral wastes	90,782	82,091	48,801	42,670	38,160	69,134	51,090	56,410	78,922	54,991	50,135	48,447	55,828
Other	827,226	1,033,672	810,066	694,584	528,393	679,334	677,100	586,919	445,708	483,340	473,834	214,467	100,827
Total	**7,054,739**	**7,107,813**	**7,364,069**	**6,129,843**	**4,706,701**	**4,552,968**	**4,670,791**	**4,481,545**	**4,073,122**	**4,118,622**	**4,174,250**	**3,737,249**	**3,828,065**

Table 3. Hazardous waste disposed to landfill in Scotland by waste category 2005 – 2017

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)
Other mineral wastes	26,337	27,047	25,693	26,797	21,113	27,075	17,990	16,223	10,586	20,748	22,493	23,120	24,671
Mineral wastes from waste treatment and stabilised wastes	191	15	472	661	1,535	1,491	1,033	615	482	189	402	178	10,709
Soils	47,722	82,918	76,984	105,317	73,958	57,571	94,663	102,497	4,788	11,978	27,209	15,859	9,424
Mineral waste from construction and demolition	1,585	626	6,321	4,769	6,175	139	24,587	15,265	10,189	192	1,637	890	1,790
Combustion wastes	0	0	702	0	0	248	159	0	0	1,644	2,647	2,579	1,165
Sludges and liquid wastes from waste treatment	0	0	205	428	137	0	357	6,596	9,440	3	120	128	45
Other	248	7,927	570	999	123	5,821	744	2,201	87	53	17	7	14
Total	**76,084**	**118,534**	**110,947**	**138,970**	**103,042**	**92,344**	**139,534**	**143,395**	**35,572**	**34,807**	**54,525**	**42,759**	**47,817**

Figure 3. Disposal of selected wastes to landfill in Scotland 2005 - 2017

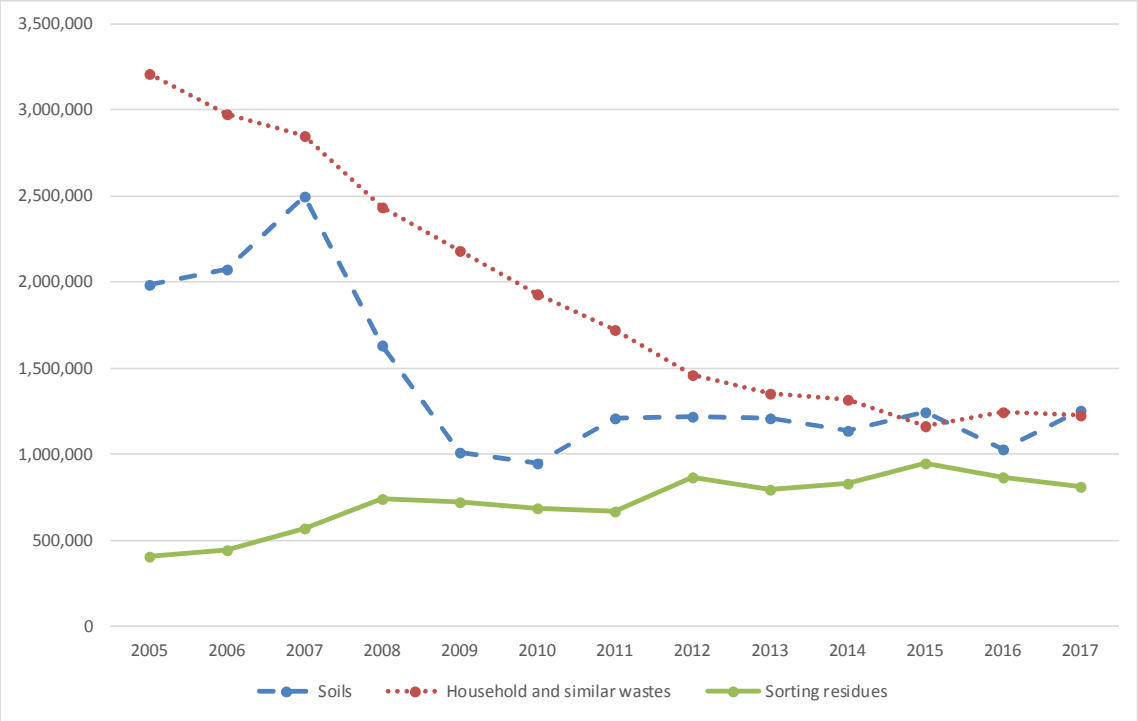


Figure 4. Disposal of selected hazardous wastes to landfill in Scotland 2005 - 2017



Biodegradable Municipal Waste (BMW) Landfilled in Scotland

- Municipal waste is defined as waste with certain EWC codes, primarily chapter 20 codes and certain chapter 15 and 19 codes. The full list of EWC codes may be found in Table 6 on page 12.
- BMW is the fraction of municipal waste which will degrade within a landfill, giving rise to methane emissions.
- In 2017, 1.08 million tonnes of BMW was disposed to landfill in Scotland (see Figure 5 below). This was a decrease of 55,756 tonnes (4.9%) from 2016. This decrease in BMW landfilled while the overall waste landfilled has increased during the same period is because Soils, the primary waste category that contributed to the overall increase, has no biodegradable content.
- Scotland has an EU based target to reduce the quantity of BMW disposed to landfill in Scotland to less than 1.26 million tonnes by 2020. Since 2013 the annual tonnage of BMW landfilled has met this target.
- In 2017, most of the BMW disposed to landfill comprised two waste types: EWC 20 03 01 (mixed municipal waste) comprised 69.7% and EWC 19 12 12 (Other non-hazardous wastes from mechanical treatment of waste) comprised 27.3%.

Figure 5. BMW landfilled in Scotland 2005 – 2017

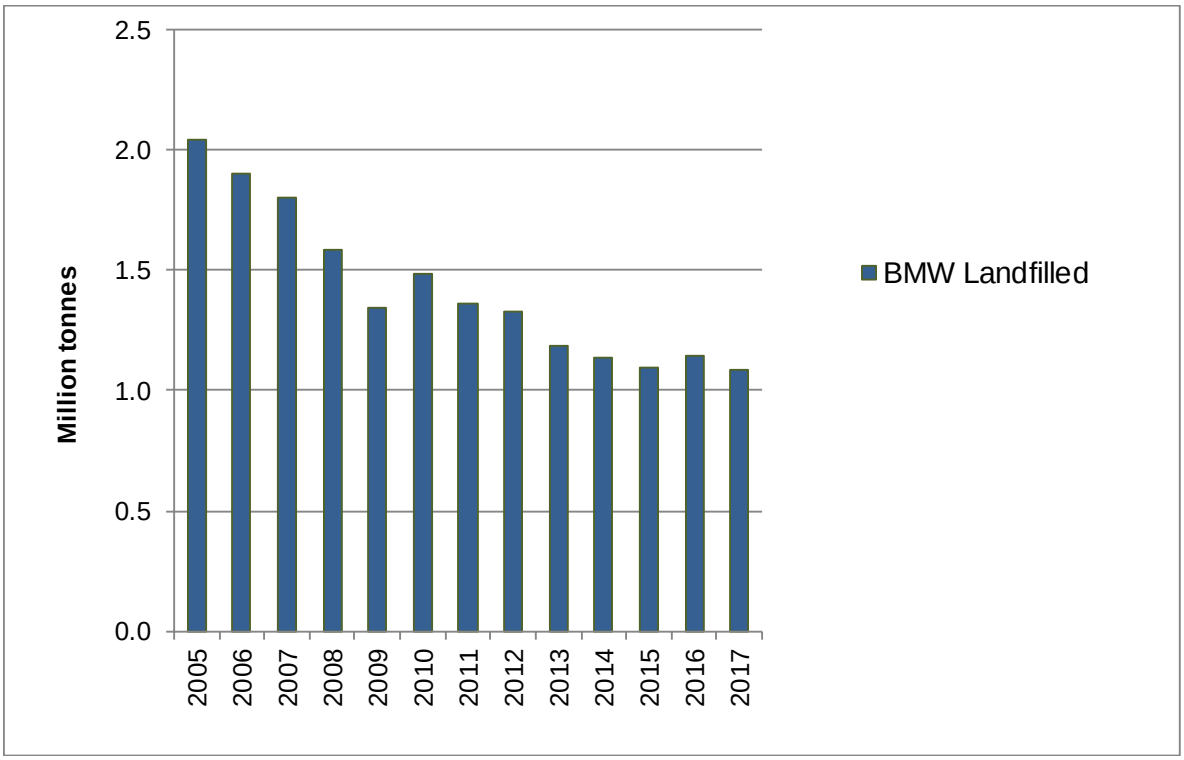


Table 4. BMW landfilled in Scotland 2005 – 2017

Year	BMW Landfilled
2005	2,039,328
2006	1,899,423
2007	1,803,518
2008	1,582,285
2009	1,344,562
2010	1,484,357
2011	1,363,516
2012	1,327,242
2013	1,182,064
2014	1,136,865
2015	1,095,158
2016	1,140,387
2017	1,084,631

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

User Statement

Data on waste generation and management is collected to monitor policy effectiveness, particularly the commitments in the Scottish Government's Making Things Last – A Circular Economy Strategy for Scotland and to support policy development. The data is also used to supply data for the Waste Statistics Regulation (2002/2150/EC). The data is used extensively by local and central government, the waste industry, researchers and the public.

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 this release and any 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.

Revision to 2016 waste landfilled in Scotland data since the last statistical publication in September 2017are shown in Table 5 below:

Methodology

Data is taken from permitted waste site returns submitted to SEPA. . Further details on the methodology used to produce the figures are provided in the annual Waste Data Quality Reports on SEPA's web site.

Glossary of terms

EWC Code – European Waste Catalogue waste code

BMW – the biodegradable fraction of Municipal Waste - waste that is capable of undergoing anaerobic or aerobic decomposition, such as; food and garden waste; and paper and cardboard. It is calculated by multiplying the Municipal waste tonnes by the biodegradability factor listed in Table 6 below.

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)

Municipal Waste – all wastes with EWC codes listed in Table 6 below.

Municipal BMW – BMW that originates from municipal sources. All wastes of EWC chapter 20 and selected wastes of EWC chapter 19 and chapter 15 are considered municipal sources.

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

Waste landfilled –WFAS that is disposed of to landfill.

Table 5. Revisions to 2016 waste landfilled in Scotland in 2016 by waste category[1]

Waste Category	Total Landfilled (tonnes)	
	Original	Revised
Acid, alkaline or saline wastes	0	0
Animal and mixed food waste	8,121	8,121
Animal faeces, urine and manure	135	135
Batteries and accumulators wastes	0	0
Chemical wastes	1,170	1,170
Combustion wastes	83,765	83,765
Common sludges	6,746	6,746
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	1,400	1,400
Discarded vehicles	0	0
Dredging spoils	0	0
Glass wastes	16,820	16,820
Health care and biological wastes	5,042	5,042
Household and similar wastes	1,245,187	1,245,786
Industrial effluent sludges	14,942	14,942
Metallic wastes, ferrous	26	26
Metallic wastes, mixed ferrous and non-ferrous	5	5
Metallic wastes, non-ferrous	0	0
Mineral waste from construction and demolition	82,855	82,855
Mineral wastes from waste treatment and stabilised wastes	250,393	250,393
Mixed and undifferentiated materials	54,306	54,306
Other mineral wastes	46,244	48,447
Paper and cardboard wastes	17	17
Plastic wastes	1,367	1,367
Rubber wastes	43	43
Sludges and liquid wastes from waste treatment	6,467	6,467
Soils	1,023,146	1,027,957
Sorting residues	853,706	867,345
Spent solvents	0	0
Textile wastes	6,581	6,581
Used oils	0	0
Vegetal wastes	7,078	7,078
Waste containing PCB	0	0
Wood wastes	437	437
Total	**3,715,997**	**3,737,249**

1. Cells shaded in grey represent revisions amounting to greater than 50 tonnes

Table 6. EWC codes that comprise Municipal Waste

EWC code	Percent biodegradability	EWC code	Percent biodegradability
20 01 01	1	20 03 99	0.63
20 01 02	0	19 01 02	0
20 01 08	1	19 01 11*	0
20 01 10	0.5	19 01 12	0
20 01 11	0.5	19 01 13*	0
20 01 13*	0	19 01 14	0
20 01 14*	0	19 01 15*	0
20 01 15*	0	19 01 16	0
20 01 17*	0	19 01 17*	0
20 01 19*	0	19 01 18	0
20 01 21*	0	19 01 99	0
20 01 23*	0	19 04 01	0
20 01 25	1	19 04 02*	0
20 01 26*	1	19 04 03*	0
20 01 27*	0	19 04 04	0
20 01 28	0	19 05 01	0.63
20 01 29*	0	19 05 03	0.63
20 01 30	0	19 06 03	0
20 01 31*	0	19 06 04	0.2
20 01 32	0	19 06 05	0
20 01 33*	0	19 06 06	0.2
20 01 34	0	19 12 01	1
20 01 35*	0	19 12 02	0
20 01 36	0	19 12 03	0
20 01 37*	1	19 12 04	0
20 01 38	1	19 12 05	0
20 01 39	0	19 12 06*	1
20 01 40	0	19 12 07	1
20 01 41	0	19 12 08	0.5
20 01 99	0.63	19 12 09	0
20 02 01	1	19 12 10	0.5
20 02 02	0	19 12 11*	0.5
20 02 03	0	19 12 12	0.63
20 03 01	0.63	15 01 01	1
20 03 02	0.63	15 01 02	0
20 03 03	0.51	15 01 05	0.74
20 03 04	0.2	15 01 06	0.63
20 03 06	0.1	15 01 07	0
20 03 07	0.5	15 01 09	0.5