# Waste landfilled in Scotland - 2019

This release provides a summary of all waste landfilled in Scotland for calendar year 2019. 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– 2019 calendar year

* The total quantity of waste landfilled in Scotland in 2019 was 3.00 million tonnes, a reduction of 735,807 tonnes (20%) from 2018 and a reduction of 4.05 million tonnes (57%) from 2005.
* The reduction was largely due to the amount of Household and similar wastes landfilled, which fell by 36% from 1.19 million tonnes in 2018 to 0.76 million tonnes in 2019. This reduction is consistent with an increase in the management of these wastes by incineration, and corresponds to several new Scottish municipal waste incinerators becoming fully operational throughout this period.
* The top three categories of waste landfilled in 2019 were Soils (1.17 million tonnes, 39% of total), Household and similar wastes (0.76 million tonnes, 25% of total) and Sorting residues (0.67 million tonnes, 22% of total)
* The amount of biodegradable municipal waste (BMW – the biodegradable component of Municipal Waste) disposed to landfill was 0.70 million tonnes, a decrease of 324,486 tonnes (32%) from 2018. This is the first time that it has been under one million tonnes.

Summary data tables are also available to download in Excel format on [SEPA's web site](http://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/).

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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 fourteen principles under the pillars of Trustworthiness, Quality and Value. More information on the Official Statistics Code of Practice can be found here: <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>.

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**Table 1. Waste landfilled in Scotland – Summary data 2019**

|  |  |
| --- | --- |
| **Waste Category** | **Total waste landfilled (tonnes)** |
| **Acid, alkaline or saline wastes** | 0 |
| **Animal and mixed food waste** | 6,329 |
| **Animal faeces, urine and manure** | 72 |
| **Batteries and accumulators wastes** | 0 |
| **Chemical wastes** | 1,209 |
| **Combustion wastes** | 4 |
| **Common sludges** | 4,420 |
| **Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)** | 509 |
| **Discarded vehicles** | 0 |
| **Dredging spoils** | 73 |
| **Glass wastes** | 9,456 |
| **Health care and biological wastes** | 9,290 |
| **Household and similar wastes** | 756,722 |
| **Industrial effluent sludges** | 20,467 |
| **Metallic wastes, ferrous** | 39 |
| **Metallic wastes, mixed ferrous and non-ferrous** | 51 |
| **Metallic wastes, non-ferrous** | 0 |
| **Mineral waste from construction and demolition** | 25,905 |
| **Mineral wastes from waste treatment and stabilised wastes** | 234,959 |
| **Mixed and undifferentiated materials** | 45,082 |
| **Other mineral wastes** | 31,318 |
| **Paper and cardboard wastes** | 39 |
| **Plastic wastes** | 1,834 |
| **Rubber wastes** | 90 |
| **Sludges and liquid wastes from waste treatment** | 6,922 |
| **Soils** | 1,173,991 |
| **Sorting residues** | 670,443 |
| **Spent solvents** | 0 |
| **Textile wastes** | 844 |
| **Used oils** | 0 |
| **Vegetal wastes** | 4,528 |
| **Waste containing PCB** | 0 |
| **Wood wastes** | 78 |
| **Total** | **3,004,674** |

# Data and trends

## Waste Landfilled in Scotland

* In 2019, 3.00 million tonnes of waste was disposed to landfill in Scotland across 46 permitted landfill sites. This was a reduction of 735,807 tonnes (20%) from 2018.
* The reduction was primarily due to the amount of Household and similar wastes landfilled, which fell by 36% from 1.19 million tonnes in 2018 to 0.76 million tonnes in 2019. This reduction is consistent with an increase Household and similar wastes incinerated[[1]](#footnote-1), and corresponds to several new Scottish municipal waste incinerators becoming fully operational throughout this period. This waste category includes waste generated by businesses as well as households. It includes refuse from regular waste collections provided by both local authorities and other contractors.
* The top three categories of waste landfilled in Scotland in 2019 were Soils (1.17 million tonnes, 39% of total), Household and similar wastes (0.76 million tonnes, 25% of total) and Sorting residues (0.67 million tonnes, 22% of total) as depicted in Figure 1 below.
* The amount of waste landfilled has generally in Scotland has decreased steadily since 2009 (see Figure 1 below)
* As shown in Figure 2 and Table 3 below, 40,999 tonnes of hazardous waste were disposed to landfill in Scotland in 2019, accounting for 1.4% of all waste landfilled. Just over half of the hazardous waste landfilled was Other mineral wastes (21,939 tonnes, 54% of total), which primarily comprised insulating materials such as asbestos.
* Between 2005 and 2012, soils comprised between 63% and 76% of the total hazardous waste disposed to landfill. From 2013 onwards, that percentage has dropped, and in 2019 comprised 15% (6,191 tonnes, see Figure 4 and Table 3 below). This change corresponds to a change in 2012 when a landfill tax exemption for disposing of waste from contaminated land was removed.

Figure . Waste disposed to landfill in Scotland by waste category 2005 - 2019



Figure . Hazardous waste disposed to landfill in Scotland by waste category 2005 – 2019



Table . Waste disposed to landfill in Scotland by waste category 2005 - 2019

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Year** | | | | | | | | | | | | | | |
| **Waste Category** | **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)** | **2019 (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 | 1,026,687 | 1,256,725 | 1,415,748 | 1,173,991 | |
| 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 | 1,222,957 | 1,187,185 | 756,722 | |
| 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 | 813,569 | 745,403 | 670,443 | |
| 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 | 214,430 | 234,959 | |
| Mixed and undifferentiated materials | 93,097 | 95,909 | 107,268 | 83,171 | 75,702 | 62,347 | 75,231 | 47,623 | 43,203 | 42,554 | 62,139 | 54,306 | 34,671 | 46,497 | 45,082 | |
| 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 | 39,504 | 31,318 | |
| Other | 1,190,418 | 1,349,429 | 1,129,395 | 1,024,940 | 553,381 | 714,690 | 780,538 | 634,999 | 462,811 | 591,702 | 473,441 | 243,016 | 166,242 | 91,713 | 92,158 | |
| **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** | **3,735,979** | **3,825,356** | **3,740,480** | **3,004,674** | |

Table . Hazardous waste disposed to landfill in Scotland by waste category 2005 – 2019

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Year** | | | | | | | | | | | | | | |
| **Waste Category** | **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)** | **2019 (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 | 23,521 | 21,939 |
| 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 | 5,299 | 7,033 |
| 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 | 9,642 | 6,191 |
| Sludges and liquid wastes from waste treatment | 0 | 0 | 205 | 428 | 137 | 0 | 357 | 6,596 | 9,440 | 3 | 120 | 128 | 45 | 3,094 | 5,610 |
| Chemical wastes | 3 | 7,842 | 135 | 253 | 112 | 362 | 126 | 36 | 32 | 19 | 17 | 7 | 14 | 327 | 189 |
| 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 | 3,473 | 38 |
| Other | 245 | 85 | 1,138 | 746 | 11 | 5,706 | 777 | 2,165 | 55 | 1,678 | 2,647 | 2,579 | 1,165 | 557 | 0 |
| **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** | **45,913** | **40,999** |

Figure . Disposal of selected wastes to landfill in Scotland 2005 - 2019



Figure . Disposal of selected hazardous wastes to landfill in Scotland 2005 - 2019



## 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 relevant EWC codes may be found in Table 5 on Page 11.
* BMW is the fraction of municipal waste which will degrade, giving rise to methane emissions over time when landfilled. It should be noted that this measure differs from that for the 2025 BMW landfill ban. The 2025 landfill ban applies to the whole amount of waste containing BMW, not just the BMW fraction.
* In 2019, 0.70 million tonnes of BMW were disposed to landfill in Scotland (see Figure 5 below). This was a decrease of 324,486 tonnes (32%) from 2018. The large reduction is due to the decrease by 430,463 tonnes of Household and similar wastes landfilled (see Figure 1 on page 4 above). These wastes primarily comprise EWC code 20 03 01 which has a high biodegradability factor of 63% (see Table 5 on page 11).
* 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 Scotland has met this target.
* In 2019, the top two categories of BMW disposed to landfill were EWC 20 03 01 (mixed municipal waste) which comprised 63% of the total and EWC 19 12 12 (Other non-hazardous wastes from mechanical treatment of waste) which comprised 30% of the total (data not shown).

Figure . BMW landfilled in Scotland 2005 – 2019



Table . BMW landfilled in Scotland 2005 – 2019

|  |  |
| --- | --- |
| **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** | 1,090,404 |
| **2018** | 1,023,292 |
| **2019** | 698,805 |

# 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](http://www.gov.scot/Publications/2016/02/1761) 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.

There were no revisions to 2018 waste landfilled in Scotland data since the last statistical publication.

**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](http://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/).

**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 5 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 5 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, industrial, and construction and demolition sources as well as from household sources.

**Waste landfilled** –WFAS that is disposed to landfill.

Table . European Waste Catalogue (EWC) codes that comprise Municipal Waste[[2]](#footnote-2)

|  |  |  |  |
| --- | --- | --- | --- |
| **EWC code** | **Biodegradability factor** | **EWC code** | **Biodegradability factor** |
| 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 |

1. For statistical information about waste incinerated in Scotland, refer to the 2019 Waste incinerated in Scotland official statistics available at <https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/> [↑](#footnote-ref-1)
2. The fraction of 19 12 12 coded waste considered municipal waste is calculated on a site by site basis, in order to account for municipal waste inputs that contribute to the formation of the 19 12 12 waste. An EWC code with an asterisk is a hazardous waste. [↑](#footnote-ref-2)