Waste incinerated in Scotland - 2020

This release provides a summary of all waste incinerated in Scotland for calendar year 2020. It excludes Scottish waste incinerated 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 incinerated in Scotland – 2020 calendar year

- The total quantity of waste incinerated in Scotland in 2020 was 1.26 million tonnes, an increase of 38,000 tonnes (3.1%) from 2019, and an increase of 855,000 tonnes (208%) from 2011.
- The waste material category with the highest amount incinerated in 2020 was Wood wastes, which comprised 32.8% (415,000 tonnes) of the total waste incinerated. This was however a 15.3% (75,000 tonnes) decrease compared with 2019, a likely impact of COVID-19 restrictions such as closure of household waste recycling centres and reduced construction activities during the reporting period.
- Hazardous waste comprised 0.5% (6,000 tonnes) of waste incinerated in 2020 and was solely composed of hazardous Health care and biological wastes. This was a reduction of 2,000 tonnes (28.8%) compared with 2019.
- Compared to historical figures, there were large increases (over 5,900 tonnes, 3900%) in the incineration of hazardous Health care and biological wastes for the last two years. This is likely a combination of factors, such as increase in incineration capacity in Scotland, disposal of temporary stockpiles of these wastes in 2019, and an increase in these wastes for disposal due to the COVID-19 pandemic in 2020.

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 452546.

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: https://code.statisticsauthority.gov.uk/the-code/

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Table 1. Waste incinerated in Scotland – Summary data 2020 (tonnes)

Waste Category	Total incinerated
Acid, alkaline or saline wastes	0
Animal and mixed food waste	11,431
Animal faeces, urine and manure	80,073
Batteries and accumulators wastes	0
Chemical wastes	0
Combustion wastes	0
Common sludges	0
Discarded equipment (excluding discarded vehicles, batteries and accumulators wastes)	0
Discarded vehicles	0
Dredging spoils	0
Glass wastes	0
Health care and biological wastes	7,231
Household and similar wastes	350,231
Industrial effluent sludges	10,653
Metallic wastes, ferrous	0
Metallic wastes, mixed ferrous and non-ferrous	0
Metallic wastes, non-ferrous	0
Mineral waste from construction and demolition	0
Mineral wastes from waste treatment and stabilised wastes	0
Mixed and undifferentiated materials	341
Other mineral wastes	0
Paper and cardboard wastes	0
Plastic wastes	0
Rubber wastes	12,904
Sludges and liquid wastes from waste treatment	0
Soils	0
Sorting residues	376,407
Spent solvents	0
Textile wastes	0
Used oils	0
Vegetal wastes	0
Waste containing PCB	0
Wood wastes	415,319
Total	**1,264,590**

Data and Trends

Waste Incinerated in Scotland

- In 2020, 1.26 million tonnes of waste were incinerated in Scotland across 15 permitted incineration facilities. This was an increase of 38,000 tonnes (3.1%) from 2019. This increase is consistent with the longer term incineration trend, with 855,000 tonnes (208%) more waste incinerated in Scotland than in 2011 (see Figure 1 below).
- Wood wastes were the largest category of waste incinerated in Scotland in 2020 (415,000 tonnes), comprising one third (32.8%) of all waste incinerated. Of the Wood wastes incinerated, 44% originated in the UK outwith Scotland (data not shown). This compares with 4% that originated in the UK outwith Scotland in 2011. In 2020 there was a 15.3% (75,000 tonnes) reduction in wood wastes incinerated compared with 2019. This is likely due in part to the closure of household waste recycling centres and reduced construction activity during the COVID 19 lockdowns which significantly restricted the supply of wood waste available for co-incineration.
- There was a 6.0% (20,000 tonnes) increase of Household and similar wastes incinerated in 2020. At least one municipal incineration site has reported an increase in these wastes being due to an increase in Municipal waste arising from the COVID-19 pandemic. The increase in the incineration of Municipal wastes such as Household and similar wastes has been increasing over the last four years (see Figure 1 below). This is likely the response of Scottish local authorities and waste management companies to divert waste from landfill ahead of the ban of biodegradable municipal waste to Scottish landfills in 2025.
- There was a 38.4% (376,000 tonnes) increase in the incineration of Sorting residues compared with 2019. A significant proportion of these wastes were likely generated from the treatment of Household and similar wastes.
- There were 6,000 tonnes of hazardous waste incinerated in Scotland in 2020 (see Figure 3 below), which amounted to 0.5%of all waste incinerated in Scotland. Similar to 2019, all hazardous waste incinerated was solely composed of Health care and biological wastes.
- The amount of Health care and biological wastes incinerated between 2019 and 2020 decreased by 28.8% (2,000 tonnes). This might seem unexpected, as the COVID 19 pandemic would result in a higher amount of health care and biological wastes for incineration. However, 2019 was an unusual year for the disposal of these wastes, with a large increase in incineration in that year likely due to temporary stockpiling of these wastes following a contract termination by the Scottish NHS for clinical waste services provided by Healthcare Environmental Services (HES), and SEPA enforcement activity at two HES waste sites.
- In 2020, over one third of waste incinerated in Scotland was recovered by co-incineration (41.8%) with the remaining 58.2% incinerated by disposal. There was no incineration by recovery in 2020 as there were no municipal waste incinerators in Scotland that had applied to become accredited to the R1 energy efficiency standard[1]. The percentage of waste incinerated by co-incineration or by R1 recovery was a decrease of 7.4 percentage units from 2019 and decrease of 33.3 percentage units from 2018. This is due to several new municipal waste facilities becoming operational in Scotland that had not applied to receive R1 accreditation.

[11] The R1 energy efficiency standard is specified in Annex II of the EU Waste Framework Directive

Figure 1. Waste incinerated in Scotland by waste category 2011 - 2020

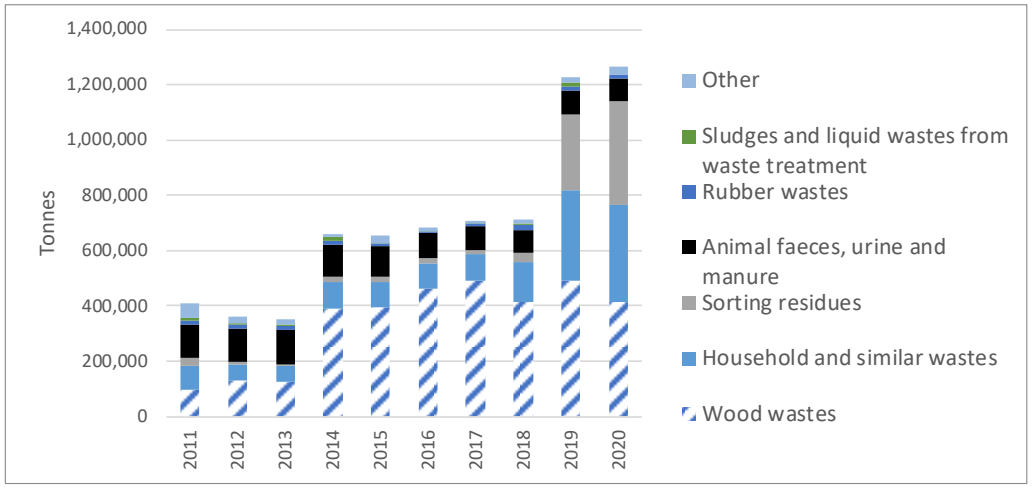


Table 2. Waste incinerated in Scotland by waste category 2011 – 2020 (tonnes)

Waste Category	Year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Wood wastes	94,477	130,449	123,121	388,394	394,199	464,310	493,081	416,272	490,292	415,319
Household and similar wastes	87,693	58,759	59,034	98,041	90,837	90,646	94,636	142,946	330,368	350,231
Sorting residues	29,648	6,270	7,578	17,836	22,912	16,582	12,043	31,858	271,993	376,407
Animal faeces, urine and manure	119,309	120,509	123,748	117,431	108,194	94,685	89,009	85,320	87,080	80,073
Rubber wastes	15,235	14,539	15,025	16,183	8,594	2,940	8,039	17,511	16,424	12,904
Sludges and liquid wastes from waste treatment	8,745	7,150	4,082	10,410	1,476	82	112	2,307	10,583	0
Other	54,952	22,457	18,557	10,211	28,584	13,980	11,244	15,290	19,768	29,657
Total	**410,059**	**360,132**	**351,145**	**658,506**	**654,797**	**683,225**	**708,164**	**711,504**	**1,226,507**	**1,264,590**

Figure 2. Waste incinerated in Scotland by incineration method 2011 - 2020

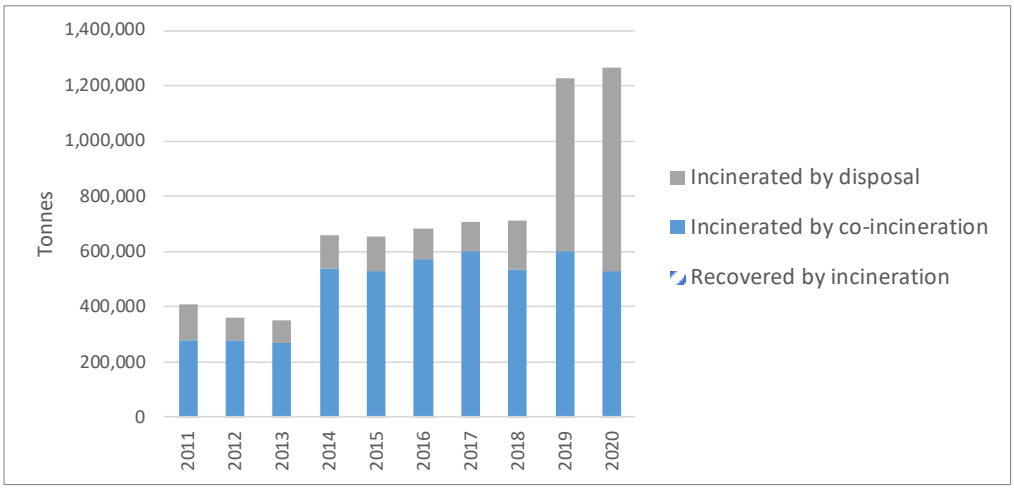


Table 3. Waste incinerated in Scotland by incineration method 2011 - 2020 (tonnes)

Year	Recovered by incineration	Incinerated by co-incineration	Incinerated by disposal	Total
2011	0	276,869	133,190	410,059
2012	0	276,899	83,234	360,132
2013	0	268,295	82,850	351,145
2014	0	537,817	120,689	658,506
2015	0	529,303	125,494	654,797
2016	0	572,008	111,217	683,225
2017	0	598,944	109,220	708,164
2018	0	534,357	177,147	711,504
2019	0	602,672	623,835	1,226,507
2020	0	528,082	736,508	1,264,590

Figure 3. Hazardous waste incinerated in Scotland 2011 – 2020

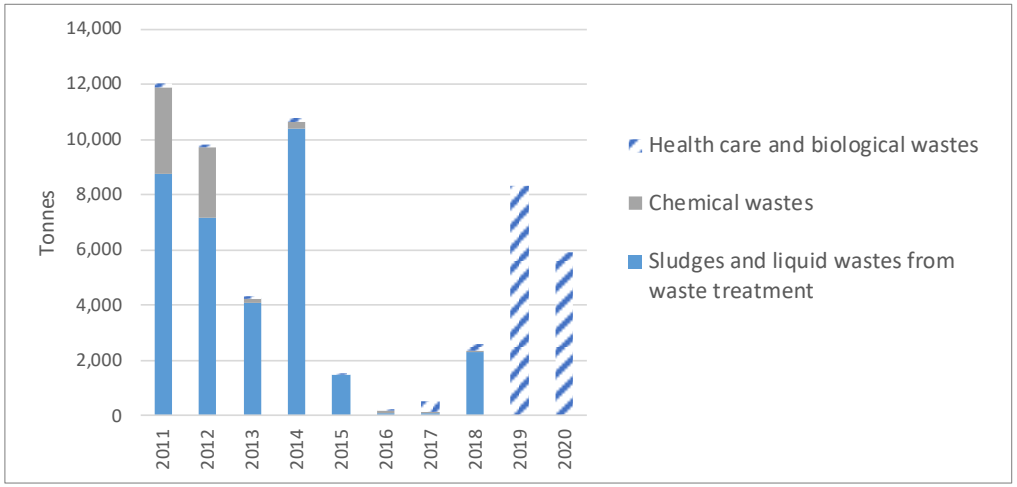


Table 4. Hazardous waste incinerated in Scotland 2011 – 2020 (tonnes)(

Waste Category	Year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Health care and biological wastes	172	90	94	107	82	49	387	207	8,304	5,911
Sludges and liquid wastes from waste treatment	8,745	7,150	4,082	10,410	1,476	82	112	2,307	0	0
Chemical wastes	3,134	2,567	172	244	0	114	33	58	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	**12,103**	**9,811**	**4,348**	**10,761**	**1,558**	**245**	**532**	**2,572**	**8,304**	**5,911**

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 are also used 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 are 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 are 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 2019 waste incinerated in Scotland data since the last statistical publication.

Methodology

Data is taken from licensed/permitted site returns or reports 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

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 demolition sources as well as from household sources.

Waste incinerated by co-incineration – wastes used principally as a fuel and incinerated at an incineration facility in which the main purpose is the generation of energy or production of material products (e.g. cement) and which uses waste as an additional fuel.

Waste incinerated by disposal - wastes incinerated 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 incinerated by recovery - wastes used principally as a fuel to generate energy and incinerated at an incineration facility where the energy efficiency has been demonstrated to meet the R1 energy efficiency criteria specified in the EU Waste Framework Directive (Directive 2008/98/EC).

Waste recovered by incineration - wastes incinerated by co-incineration and waste incinerated by recovery.

Waste incinerated –WFAS that is incinerated in Scotland including waste incineration by disposal and waste incineration by recovery.