

# Waste Data Digest 10: Key facts and trends

Published 2010





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# Introduction

Welcome to *SEPA's Waste data digest*; a report based on data collected by, or on behalf of, SEPA on controlled waste in Scotland.

The digest is presented in two parts:

- Key facts and trends – an A5-sized booklet with tables, graphs and text dealing with high-level facts and trends.
- Data tables – online excel tables presenting detailed annual data on municipal, commercial and industrial wastes.

The Key facts and trends booklet focuses on more than 20 key topics. It is divided into four main sections: waste arisings, recovery, disposal and incineration, and includes data on municipal, commercial and industrial wastes. The data is presented for the last five years. The latest data reported covers the calendar year 2008. However, in some instances, only financial year information is available and this is reported for 2008–2009.

This booklet and previous digests, including data tables, are on SEPA's website: [www.sepa.org.uk/waste/waste\\_data/waste\\_data\\_digest.aspx](http://www.sepa.org.uk/waste/waste_data/waste_data_digest.aspx)

## Key findings

Some of the key points in the booklet are:

- The quantity of controlled waste produced in Scotland was 19.51 million tonnes in 2008. There is currently no clear trend in the data.
- A total of 3.29 million tonnes of municipal waste were managed by Scottish local authorities in 2008–2009. This is the lowest amount managed in the last five years. The Scottish Government's target of zero growth in municipal waste by the end of 2010 appears to be achievable.
- Scottish local authorities recycled and composted 34.3% of the waste they managed in 2008–2009. Although the rate continues to grow, the speed of increase is slowing. The target of 30% by the end of 2008 was achieved, but the 40% target for the end of 2010 will be challenging.
- There was a substantial drop in the quantity of controlled waste landfilled in Scotland during 2008. At 6.14 million tonnes it was 1.2 million tonnes less than in 2007. Much of the reduction was due to the completion of restoration work at a number of landfill sites.

The next Key facts and trends booklet reporting 2009 and 2009–2010 waste data is due to be published in spring 2011.





# Important information

These notes are provided to help you understand the booklet better.

## Construction and demolition waste

In this year's booklet, for the first time, we are able to provide data on commercial and industrial waste arisings. Previously the data presented in the arisings section was for commercial and industrial waste handled at waste management sites and by exempt activities.

## List of waste management sites

A list of waste management facilities sites in Scotland is available on the SEPA website: [www.sepa.org.uk/waste/waste\\_data/site\\_capacity\\_\\_infrastructure.aspx](http://www.sepa.org.uk/waste/waste_data/site_capacity__infrastructure.aspx)

## Municipal waste

The definition of municipal waste changed in April 2006 (see 'Supporting information' section for more details). To allow meaningful conclusions to be drawn concerning trends in municipal waste it has been necessary to rework data from previous years to match the new definition. As a result, tonnages for years prior to 2006–2007 may differ from those published in previous digests. The tonnages in the digest are correct according to the definition that existed at the time.

## Reporting years

Normally data are reported by calendar year, but in some instances only financial year data are available. The financial year runs from 1 April to the 31 March and is shown as (for example) 2008–2009.

## Rounding

Please note that where the sum of the figures in a table does not equal the total, this is due to rounding.

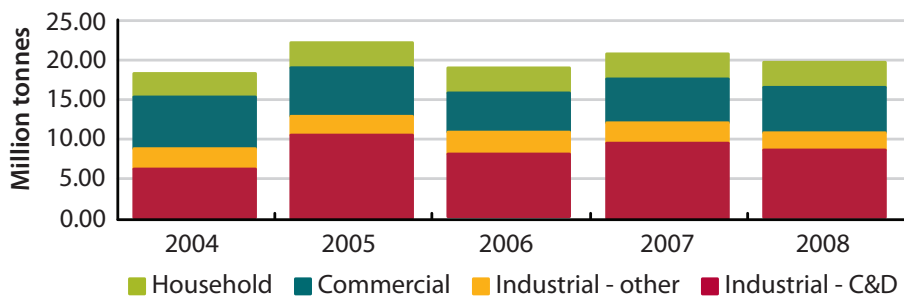
## Scottish Executive

The Scottish Executive was established in 1999 and since August 2007 has been officially referred to as the Scottish Government. Therefore, where reference is made to the Scottish Executive the term 'the (then) Scottish Executive' is used.

## Updates

Some data tables have been updated since they were originally published in the waste data digest, in order to provide more robust data.

## Total controlled waste arisings in Scotland 2004–2008



Million tonnes

| Waste type         | 2004         | 2005         | 2006         | 2007         | 2008         |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Household*         | 2.77†        | 2.87†        | 2.97†        | 3.00†        | 2.94         |
| Commercial         | 6.54         | 6.21         | 5.07         | 5.48         | 5.75         |
| Industrial - other | 2.58         | 2.36         | 2.71         | 2.75         | 2.19         |
| Industrial - C&D   | 6.15         | 10.61        | 8.03         | 9.44†        | 8.63         |
| <b>Total</b>       | <b>18.04</b> | <b>22.05</b> | <b>18.78</b> | <b>20.67</b> | <b>19.51</b> |

\* Household figures for 2004-2006 are calculated on a proportional basis (3/4 of 2004/05 + 1/4 of 2003/04).

† Updated data.

The total controlled waste arisings in Scotland in 2008 was 19.51 million tonnes. The waste was made up of about 45% construction and demolition waste, 30% commercial, 15% household and 10% industrial.

Household waste arisings fell in 2008, after an upward trend for the first four years. This may indicate that the quantity of household waste produced is stabilising. None of the other waste streams, or the overall controlled waste show any clear trends.

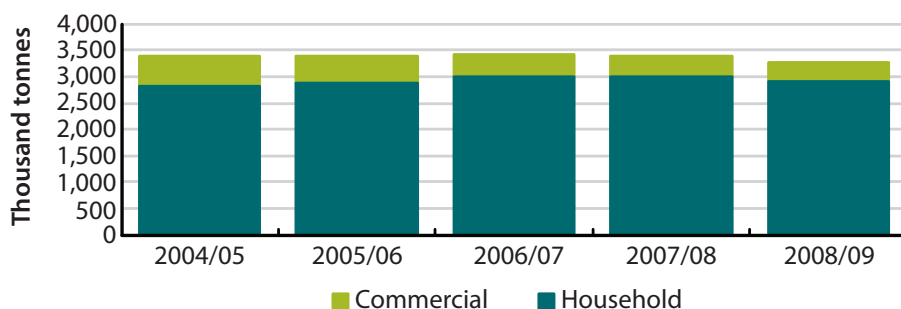
Controlled waste is all waste as defined in the Controlled Waste Regulations 1992. SEPA collects waste data by a variety of means. Data collected in the WasteDataFlow database were used to produce the household waste arisings figures.

Currently there is no legislation to allow SEPA to gather information from businesses directly on the waste they produce. Commercial and industrial waste arisings for 2004 and 2006, excluding construction and demolition waste, were obtained from the voluntary national business waste surveys carried out by SEPA. The figures for the 2005 were estimated using data from the 2004 survey and figures for 2007 and 2008 from the 2006 survey.

Construction and demolition waste arisings have been generated by analysing the statutory returns from waste management sites and exempt activity sites that manage these wastes. Allowances have been made for possible double counting.



## Municipal waste managed by, or on behalf of, Scottish local authorities 2004–2005 to 2008–2009



|                      | Tonnes           |                  |                  |                  |                  |
|----------------------|------------------|------------------|------------------|------------------|------------------|
| Waste type           | 2004/05          | 2005/06          | 2006/07          | 2007/08          | 2008/09          |
| Household            | 2,807,170        | 2,885,695        | 3,005,866        | 3,001,154        | 2,905,584        |
| Commercial           | 585,673          | 497,960          | 409,989          | 388,273          | 363,021          |
| Other non household* | 13,757           | 30,529           | 21,192           | 24,275           | 19,464           |
| <b>Total</b>         | <b>3,406,601</b> | <b>3,414,184</b> | <b>3,437,046</b> | <b>3,413,702</b> | <b>3,288,069</b> |

\* Includes mixed industrial.

The amount of municipal waste managed by Scottish local authorities in 2008–2009 was 3.29 million tonnes. This is the lowest amount managed in the last five years.

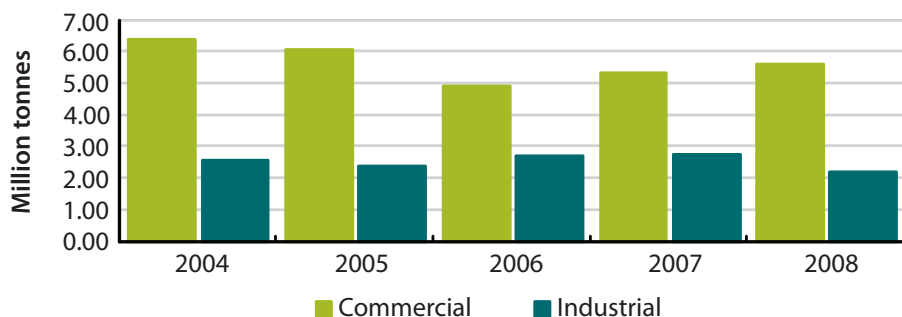
In 2003, the (then) Scottish Executive set a target that the growth in municipal waste should cease by 2010. This was restated by the Scottish Government in 2008 as part of its plans for a zero waste Scotland. Available data indicates that there was a decrease of almost 3.5% between 2004–2005 and 2008–2009.

Although there was an overall reduction during this time, there was a considerable difference between the household and commercial components. Annually, average household waste increased by 0.9% and commercial waste decreased by 11%. There are two possible reasons for the decrease in commercial waste: one, a reduction in the waste produced by businesses and the other, local authorities collecting waste from fewer businesses.

Additionally, many local authorities have to estimate the split between household and commercial waste in mixed collections. Some cannot do this, and in these cases SEPA counts all waste as household. We are currently working on a methodology to help local authorities achieve more accurate estimates.

Municipal waste is all waste for which a local authority makes arrangements with certain exceptions. Information on the definition of municipal waste and on the Scottish Government's targets for municipal waste can be found on pages 31 and 32.

## Business waste arisings in Scotland 2004–2008



| Million tonnes |             |             |                   |                   |             |
|----------------|-------------|-------------|-------------------|-------------------|-------------|
| Waste type     | 2004        | 2005        | 2006              | 2007              | 2008        |
| Commercial     | 6.39        | 6.06        | 4.92              | 5.33              | 5.60        |
| Industrial*    | 2.57        | 2.35        | 2.70 <sup>†</sup> | 2.74 <sup>†</sup> | 2.18        |
| <b>Total</b>   | <b>8.96</b> | <b>8.41</b> | <b>7.62</b>       | <b>8.07</b>       | <b>7.78</b> |

\* Does not include waste from construction sector.

<sup>†</sup> Updated data.

Business waste produced in Scotland was 7.78 million tonnes in 2008. It was composed of 72% commercial waste and 28% industrial.

There was an overall downward trend in the quantity of business waste produced over the period. It fell by 1.18 million tonnes (13%) between 2004 and 2008. Both the commercial and industrial waste arisings show a similar downward trend.

Business waste is waste produced by all businesses, including public sector organisations and commercial and industrial companies, such as factories, utility and transport companies, shops, offices, hotels, restaurants, schools and hospitals.

There is no statutory requirement for commerce and industry to make data returns to SEPA on the waste they produce. This has led to two national business waste surveys being carried out for 2004 and 2006 data. The returns were statistically analysed and grossed up to produce overall totals for Scotland. Figures for 2007 and 2008 were estimated based on the 2006 data and 2005 figures were estimated using data from the 2004 survey. As a result of the low response rate to the surveys, the figures have a large confidence interval associated with them.

All commercial and industrial sectors were included in the surveys, with the exception of agriculture, forestry, and construction in both 2004 and 2006; the fishing, and mining and quarrying sectors were excluded in 2004.

## Construction and demolition waste arisings in Scotland 2004–2008



Million tonnes

|              | 2004        | 2005         | 2006        | 2007        | 2008        |
|--------------|-------------|--------------|-------------|-------------|-------------|
| <b>Total</b> | <b>6.15</b> | <b>10.61</b> | <b>8.03</b> | <b>9.44</b> | <b>8.63</b> |

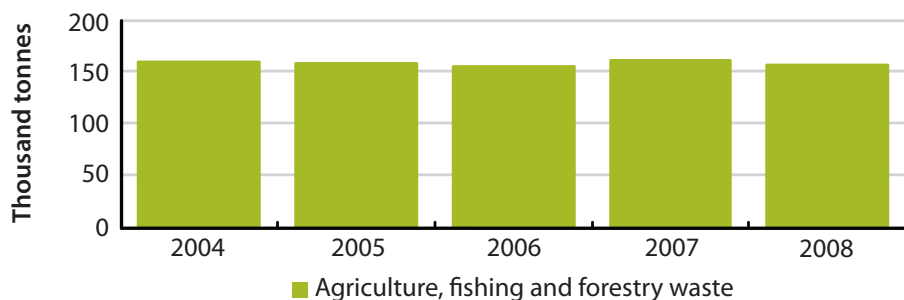
In 2008 the quantity of construction and demolition waste arising in Scotland was just over 8.63 million tonnes. This represents about 45% of all controlled waste arisings in Scotland. The predominant waste types were mineral wastes (including soils and stones), 6.20 million tonnes (72%) and mixed construction and demolition wastes, 2.01 million tonnes (23%). Approximately 29,000 tonnes of asbestos containing waste were also produced.

There is no clear trend in the quantity of waste arisings. Much of the variability can be explained by changes in the number and scale of construction and demolition projects.

Currently there is no legislation to allow SEPA to gather information directly from businesses on the construction and demolition waste they produce. The data in this table has been generated by analysing the statutory returns from waste management sites and exempt activity sites that manage these wastes. Allowances have been made for possible double counting.

Construction and demolition wastes typically include soils, concrete, bricks, glass, wood, plasterboard, asbestos, metals and plastics and are classified under Chapter 17 of the European Waste Catalogue List of Wastes (EWC 2002). Depending on their nature, these wastes are managed either at licensed/permitted waste management sites or certain exempt activities registered under paragraphs 9 and 19 of the Waste Management Licensing Regulations.

## Agriculture, fishing and forestry waste arisings in Scotland 2004–2008



Million tonnes

| Waste type   | 2004           | 2005           | 2006           | 2007           | 2008           |
|--------------|----------------|----------------|----------------|----------------|----------------|
| Agriculture* | 151,309        | 150,600        | 147,919        | 152,919        | 149,514        |
| Fishing†     | 4,994          | 4,786          | 3,770          | 4,118          | 3,115          |
| Forestry‡    | 3,257          | 3,267          | 3,274          | 3,284          | 3,286          |
| <b>Total</b> | <b>159,560</b> | <b>158,653</b> | <b>154,963</b> | <b>160,321</b> | <b>155,915</b> |

\* Includes aquaculture.

† Sea fishing. Excludes fish waste disposed of at sea.

‡ Excludes plant material left *in situ*.

A total of 156,000 tonnes of waste were produced in 2008 by the agriculture, fishing and forestry sectors in Scotland. There is no clear trend in the total waste produced between 2004 and 2008.

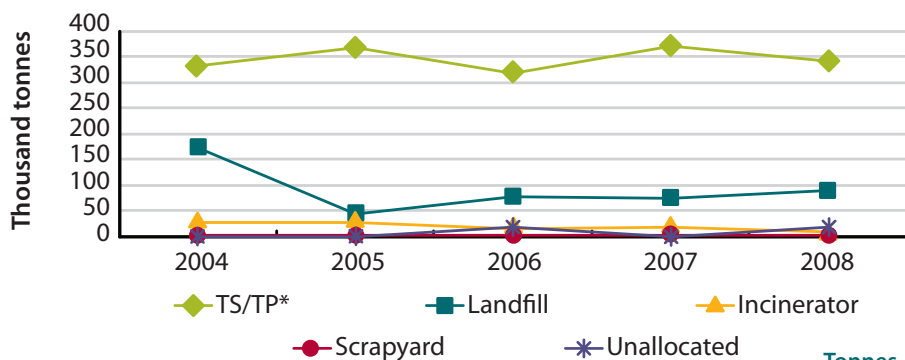
The differences in the amounts of agricultural waste produced each year are mainly due to changes in the overall area of agricultural land and to crop and livestock production. Overall, fishing waste has declined by about 38% to around 3,100 tonnes since 2004. This is linked to a reduction in the number of fish landed at Scottish ports over these years. Forestry waste has remained fairly constant during this period at approximately 3,300 tonnes.

Data from the Scottish Agricultural Census were used to produce estimates of waste arisings from farms, based on parameters such as crop and livestock production. Wastes from the aquaculture sector are also included in this and are determined from fish mortality data. Models were used to estimate waste arising from fishing and forestry.

Agricultural wastes include packaging, plastics, redundant machinery, tyres, oils, batteries, fencing, building materials, scrap metal, unused pesticides and veterinary medicines, and spent sheep dip. Fishing wastes that arise at ports usually consist of broken nets, packaging waste and waste oils. Typical wastes produced by the forestry sector are oil, batteries, chemicals, metal, packaging and general mixed wastes.



## Special waste consigned to waste management facilities in Scotland 2004–2008



| Destination type | 2004           | 2005           | 2006           | 2007           | 2008           |
|------------------|----------------|----------------|----------------|----------------|----------------|
| TS/TP*           | 330,316        | 368,157        | 318,528        | 371,535        | 339,178        |
| Landfill         | 172,832        | 44,425         | 78,185         | 75,320         | 88,144         |
| Incinerator      | 27,892         | 27,403         | 13,810         | 16,237         | 9,466          |
| Scrapyard        | 2,093          | 2,377          | 2,501          | 2,945          | 1,938          |
| Unallocated†     | 491            | 99             | 18,871         | 1,901          | 16,481         |
| <b>Total</b>     | <b>533,624</b> | <b>442,460</b> | <b>431,895</b> | <b>467,938</b> | <b>455,206</b> |

\* Transfer station/treatment plant.

† Unable to identify destination type.

In 2008 approximately 455,000 tonnes of special waste were consigned to waste management facilities in Scotland.

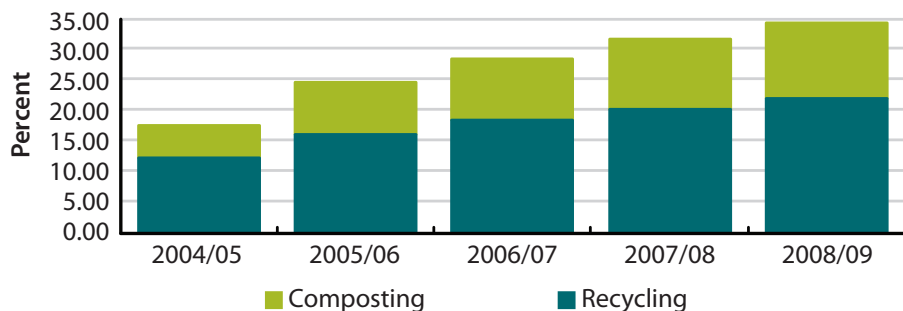
Of the waste managed in Scotland, 85% was produced in Scotland, 9% was produced outside Scotland and 6% had an unknown geographical origin. In addition to the Scottish produced special waste managed in Scotland, just over 126,000 tonnes of waste produced in Scotland were managed at sites in England and Wales. This represents about 25% of all Scottish special waste. Overall, special waste represents about 2.5% of the total controlled waste produced annually in Scotland.

The quantity of special waste sent to waste management facilities between 2005 and 2008 has remained reasonably stable. The higher total in 2004 can be explained by a large quantity of contaminated soil arising from large construction projects being landfilled.

In 2008 there were just under 220 operational sites in Scotland that managed special waste. These included transfer stations, civic amenity sites, treatment plants and landfill sites.

Special wastes are wastes that pose particular risks to human health and the environment. They are classed as such because they have one or more hazardous characteristics or properties, such as being explosive, highly flammable, toxic or carcinogenic. In the rest of the UK they are referred to as hazardous waste.

## Municipal waste recycling and composting rates for Scotland 2004–2005 to 2008–2009



|              | Percent      |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|
| Activity     | 2004/05      | 2005/06      | 2006/07      | 2007/08      | 2008/09      |
| Recycling    | 12.20        | 16.10        | 18.19        | 20.15        | 21.85        |
| Composting   | 5.30         | 8.30         | 10.25        | 11.55        | 12.43        |
| <b>Total</b> | <b>17.50</b> | <b>24.40</b> | <b>28.44</b> | <b>31.70</b> | <b>34.28</b> |

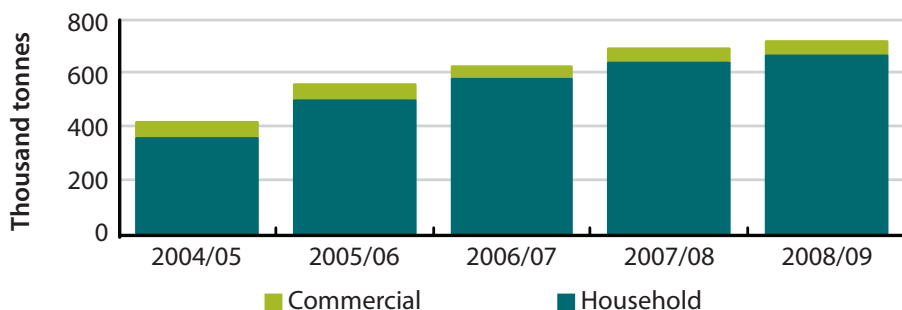
Scotland recycled and composted 34.3% of its municipal waste in 2008–2009. This is almost double the rate of 17.5% in 2004–2005. Eight local authorities recycled or composted more than 40% of their waste, 18 recycled or composted more than 30%, four recycled or composted more than 20% and only two recycled or composted less than 20%. Rates achieved by individual local authorities ranged from 18.6% to 44.9%.

Using Audit Scotland's classification of local authorities as rural, mixed or urban, the average recycling and composting rates of these three classes in 2008–2009 were 33.8% for rural authorities, 39.6% for mixed authorities and 29.7% for urban authorities. The differences may reflect the challenges rural authorities have in providing services to a diffuse population and those experienced by urban authorities in dealing with a large number of tenements and high rise blocks.

Although the recycling and composting rate continues to grow, the speed of increase is slowing. The target of 30% by the end of 2008 was achieved, but the 40% target for the end of 2010 will be challenging. Future targets have been set by the Scottish Government as part of its plans for a zero waste Scotland. The targets apply to Scotland as a whole and none have been set for individual local authorities.

Information on the Audit Scotland classification is given on page 29 and details on the targets are given on page 32.

## Scottish municipal waste recycled – breakdown by type 2004–2005 to 2008–2009



|              | Tonnes         |                |                |                |                |
|--------------|----------------|----------------|----------------|----------------|----------------|
| Waste type   | 2004/05        | 2005/06        | 2006/07        | 2007/08        | 2008/09        |
| Household    | 354,287        | 498,478        | 576,855        | 636,559        | 661,576        |
| Commercial   | 60,716         | 55,942         | 48,434         | 51,463         | 56,971         |
| <b>Total</b> | <b>415,003</b> | <b>554,419</b> | <b>625,289</b> | <b>688,023</b> | <b>718,547</b> |

The quantity of municipal waste recycled by Scottish local authorities in 2008–2009 was 719,000 tonnes. This was made up of 662,000 tonnes (92%) of household waste and 57,000 tonnes (8%) of commercial waste.

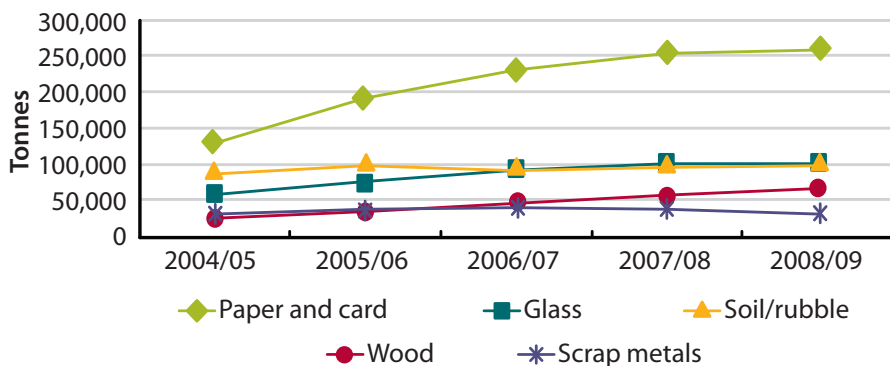
Although the improvement in the quantity of waste recycled is considerable, the annual rate of increase is slowing. Between 2007–2008 and 2008–2009 the increase was 4.4% (30,500 tonnes) compared with 12.8% (70,900 tonnes) between 2005–2006 and 2006–2007. The Scottish Government's Zero Waste Plan, due to be published in summer 2010, may provide a new impetus to recycling.

In recent years local authorities have introduced many schemes to encourage recycling, including improved kerbside collections, increased numbers of recycling centres and points and collecting a wider range of materials. Additionally, a number now send residual waste collected for disposal to material reclamation facilities to separate out any materials suitable for recycling and therefore maximise the quantity of waste recycled.

The overall improvement in recycling by local authorities has been largely driven by the need to meet the recycling and composting targets set by the Scottish Government and the (then) Scottish Executive.

Details of these targets are given on page 32.

## Scottish municipal waste recycled – breakdown by material 2004–2005 to 2008–2009



The quantity of materials recycled by local authorities varies considerably. The graph on this page shows the five most frequently recycled materials and the one on the following page, five other commonly recycled materials.

The total quantity of materials recycled by Scottish local authorities in 2008–2009 was over 714,000 tonnes. The five most frequently recycled materials in 2008–2009 made up about 80% of the overall total recycled; of these, paper and card accounted for over 36% and glass for 14%.

The most noticeable increases in recycling of individual materials over the period 2004 to 2008 have been for electrical goods and for plastics, with growth of six times and four times respectively.

Using current data on the composition of municipal waste, about 44% of the available glass and 37% of available paper and cardboard were recycled by Scottish local authorities in 2008–2009. For individual local authorities, the recycling rate for glass ranged from 18% to 67% and for paper and cardboard from 4% to 62%. There are opportunities for some local authorities to increase their recycling for certain waste types.

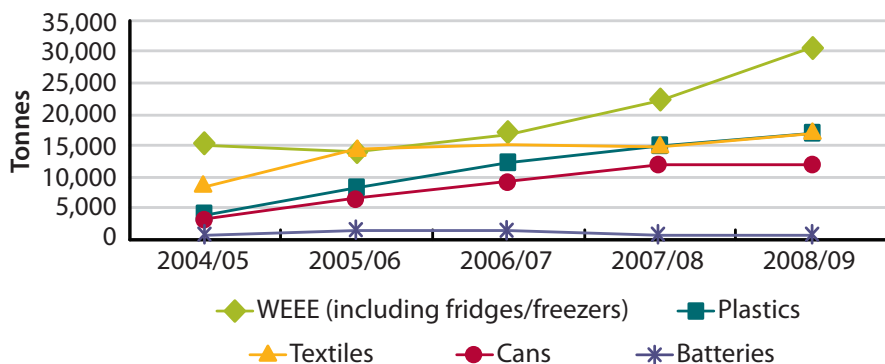
The main collection methods for recyclable materials are household and commercial kerbside collections, recycling centres, recycling points (such as sites at supermarkets), and materials recovered at sorting facilities. There were 177 recycling centres and 4,107 recycling points operated by Scottish local authorities in 2008–2009.

The increase in recycling has been largely driven by the need to meet the (then) Scottish Executive's targets for recycling and composting. Further targets were set by the Scottish Government in 2008 as part of its plans for a zero waste Scotland.

Details on the targets are given on page 32.



Scottish municipal waste recycled – breakdown by material 2004–2005 to 2008–2009

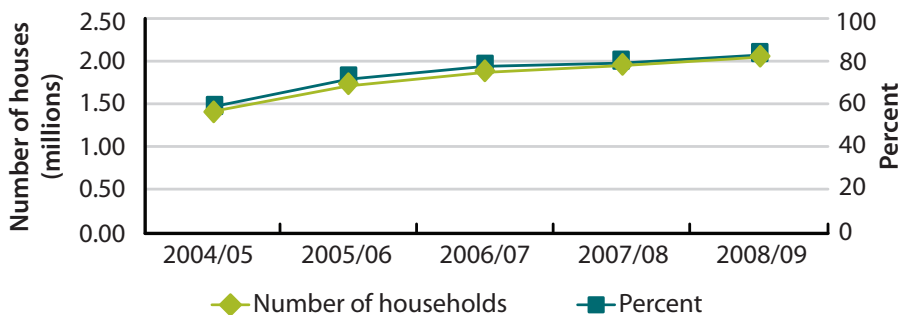


| Material                  | 2004/05        | 2005/06        | 2006/07        | 2007/08        | 2008/09        |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
| Paper and card            | 130,557        | 191,816        | 231,354        | 254,206        | 259,157        |
| Glass                     | 59,457         | 74,563         | 91,441         | 101,930        | 102,101        |
| Soil/rubble               | 87,973         | 98,773         | 91,365         | 96,631         | 99,269         |
| Wood                      | 26,759         | 35,138         | 46,693         | 56,387         | 67,773         |
| Scrap metals              | 33,629         | 38,408         | 41,334         | 38,208         | 32,512         |
| White goods/WEEE*         | 3,866          | 4,343          | 6,724          | 12,500         | 22,161         |
| Plastics                  | 3,939          | 7,963          | 12,083         | 14,715         | 16,996         |
| Textiles                  | 8,484          | 14,377         | 14,971         | 14,618         | 16,957         |
| Residue from incineration | 10,286         | 15,975         | 12,913         | 14,990         | 13,952         |
| Cans                      | 3,336          | 6,263          | 9,129          | 11,987         | 11,745         |
| Fridges/freezers          | 11,087         | 9,716          | 10,017         | 9,422          | 8,568          |
| Batteries                 | 1,076          | 1,339          | 1,465          | 1,108          | 706            |
| Other†                    | 34,623         | 55,346         | 53,475         | 57,779         | 62,462         |
| <b>Total</b>              | <b>415,072</b> | <b>554,020</b> | <b>622,966</b> | <b>684,481</b> | <b>714,359</b> |

\* Waste Electrical and Electronic Equipment.

† 'Other' includes books, furniture, mineral oils, vegetable oils, paint, fluorescent tubes and aluminium foil.

## Number of households receiving a kerbside recycling and composting collection in Scotland 2004–2005 to 2008–2009



|  | Households |           |           |           |           |
|--|------------|-----------|-----------|-----------|-----------|
|  | 2004/05    | 2005/06   | 2006/07   | 2007/08   | 2008/09   |
| Total number of households in Scotland                           | 2,388,686  | 2,412,472 | 2,425,252 | 2,458,966 | 2,464,992 |
| Households offered a kerbside recycling or composting collection | 1,421,188  | 1,719,226 | 1,873,974 | 1,948,945 | 2,051,771 |
| % of households  | 59         | 71        | 77        | 79        | 83        |

In 2008–2009, nearly 83% of Scottish households were offered a kerbside collection of one or more materials for recycling or composting by their local authority. This compares with 59% in 2004–2005. All 32 Scottish local authorities collected dry recyclables, 29 collected green waste for composting and 17 provided the service to more than 90% of their households.

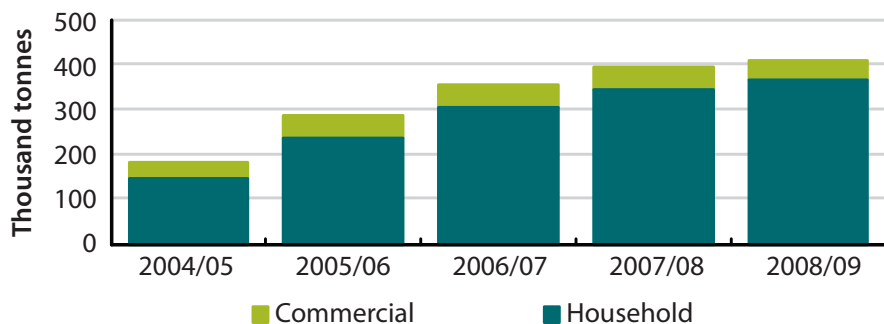
Using the Audit Scotland classification of local authorities as rural, mixed or urban, we noted the following differences in the kerbside collection rates in 2008–2009:

- Rural authorities offered a service to 89% of households compared with 81% in 2007–2008.
- Mixed authorities offered a service to 91%, the same as in 2007–2008.
- Urban authorities offered a service to 74% compared with 67% in 2007–2008.

The principal challenge for urban authorities is to provide effective kerbside recycling services to large numbers of properties, such as tenements and high rise blocks, in these areas.

Kerbside collection is only one of several means for collecting materials for recycling or composting. The others include recycling centres and points and material reclamation facilities.

## Scottish municipal waste composted 2004–2005 to 2008–2009



Tonnes

| Waste type   | 2004/05        | 2005/06        | 2006/07        | 2007/08        | 2008/09        |
|--------------|----------------|----------------|----------------|----------------|----------------|
| Household    | 144,956        | 236,529        | 301,778        | 342,713        | 365,851        |
| Commercial   | 35,759         | 49,764         | 50,589         | 51,703         | 42,997         |
| <b>Total</b> | <b>180,715</b> | <b>286,293</b> | <b>352,367</b> | <b>394,416</b> | <b>408,848</b> |

In 2008–2009 approximately 409,000 tonnes of waste were composted by Scottish local authorities. This consisted of about 366,000 tonnes (89%) of household waste and 43,000 tonnes (11%) of commercial waste.

The annual quantity of municipal waste composted continues to rise, but the rate of increase is declining. There was an increase of 3.7% between 2007–2008 and 2008–2009 compared with one of 23.1% between 2005–2006 and 2006–2007. While growth continues for household waste composted, the rise in commercial waste composted may have ceased and is starting to fall.

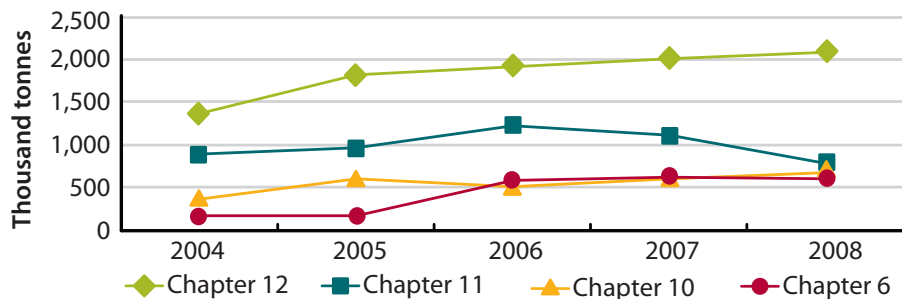
Approximately 63% of Scottish households were offered a kerbside collection of green waste by their local authority in 2008–2009. Of the 32 Scottish local authorities:

- 17 offered a kerbside collection of green waste to more than 75% of households;
- eight offered it to between 50% and 75% of households;
- seven offered it to less than 50%.

Composting can involve a weight loss. The quantities in this section refer to the weight of the waste sent for composting rather than the weight of material resulting from the composting process.

Local authorities use composting to reduce the amount of biodegradable waste going to landfill. The main collection methods were from kerbsides and recycling centres

## Controlled waste treated at licensed/permitted waste management sites in Scotland 2004–2008



Over 5.58 million tonnes of controlled waste were treated at waste management facilities in Scotland in 2008. The graph on this page shows the four largest waste streams and the graph on the following page shows the remaining waste streams.

The main waste streams treated at Scottish waste management facilities in 2008 were:

- mineral wastes, including construction and demolition waste (2.09 million tonnes);
- common sludges, including sludges from sewage treatment and from the purification of drinking water (0.79 million tonnes);
- mixed ordinary wastes (0.68 million tonnes);
- metallic wastes, including ferrous and non-ferrous scrap (0.60 million tonnes).

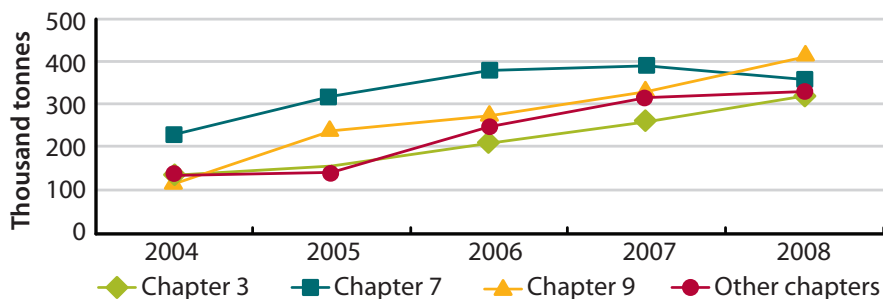
Over the five years there has been an upward trend in the quantity of waste treated. However, the rate of increase is slowing and may soon level out. The increase between 2004 and 2006 can be partly explained by the requirements of the Landfill (Scotland) Regulations 2003 which enacted the Landfill Directive (1999/31/EC) into Scottish law. Among its requirements is that landfills can only take wastes that have been pre-treated. Treatment can reduce the volume and biodegradability of waste sent to landfill, helping to meet Landfill Directive targets for municipal solid waste and reduce disposal costs for industry.

Waste can be treated by physical, chemical or biological processes in order to produce a material that is suitable for reuse, recycling, further processing or safe disposal.

Supporting information on EWC-STAT codes can be found on page 30.



## Controlled waste treated at licensed/permitted waste management sites in Scotland 2004–2008

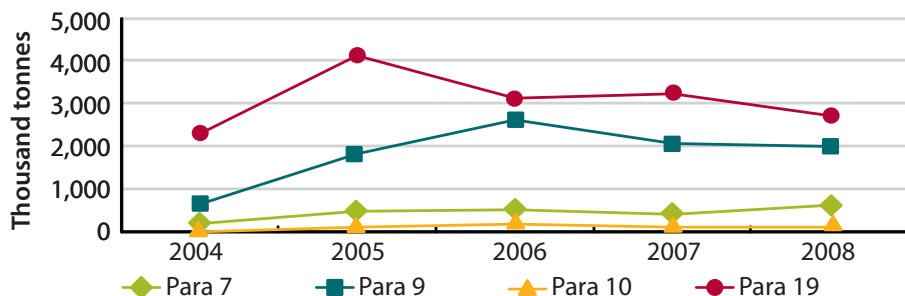


|                              |                           | Tonnes           |                  |                  |                        |                  |
|------------------------------|---------------------------|------------------|------------------|------------------|------------------------|------------------|
| Waste type by EWC-STAT* code |                           | 2004             | 2005             | 2006             | 2007                   | 2008             |
| 3                            | Other chemical wastes     | 136,718          | 155,634          | 211,018          | 260,698 <sup>†</sup>   | 321,184          |
| 6                            | Metallic wastes           | 176,205          | 175,393          | 573,490          | 627,460                | 597,131          |
| 7                            | Non-metallic wastes       | 231,764          | 318,297          | 380,126          | 391,231                | 358,481          |
| 9                            | Animal and vegetal wastes | 117,033          | 235,187          | 273,442          | 328,027 <sup>†</sup>   | 412,024          |
| 10                           | Mixed ordinary wastes     | 370,047          | 586,789          | 495,551          | 588,069 <sup>†</sup>   | 681,257          |
| 11                           | Common sludges            | 880,574          | 949,865          | 1,230,384        | 1,103,213              | 788,145          |
| 12                           | Mineral wastes            | 1,374,412        | 1,814,447        | 1,917,771        | 2,012,917 <sup>†</sup> | 2,092,610        |
| Other Chapter codes          |                           | 136,081          | 140,806          | 249,388          | 315,284                | 331,521          |
| <b>Total</b>                 |                           | <b>3,422,834</b> | <b>4,376,418</b> | <b>5,331,170</b> | <b>5,626,899</b>       | <b>5,582,353</b> |

\* European Waste Catalogue for Statistics - see page 30 for further information.

<sup>†</sup> Updated data.

## Waste managed by relevant exempt activities in Scotland 2004–2008



| Exemption paragraph | Tonnes           |                  |                  |                  |                  |
|---------------------|------------------|------------------|------------------|------------------|------------------|
|                     | 2004             | 2005             | 2006             | 2007             | 2008             |
| Paragraph 7         | 193,775          | 467,602          | 508,436          | 410,823          | 626,168          |
| Paragraph 8         | -                | 104,380          | 26,194           | 34,943           | 71,170           |
| Paragraph 9         | 653,875          | 1,793,710        | 2,625,603        | 2,063,001        | 1,995,697        |
| Paragraph 10        | -                | 93,609           | 181,414          | 93,010           | 97,148           |
| Paragraph 12        | -                | 80,557           | 27,291           | 11,412           | 51,058           |
| Paragraph 19        | 2,307,933        | 4,134,478        | 3,099,909        | 3,208,507        | 2,680,363        |
| <b>Total</b>        | <b>3,155,583</b> | <b>6,674,337</b> | <b>6,468,848</b> | <b>5,821,696</b> | <b>5,521,605</b> |

The amount of waste handled by relevant exempt activities in Scotland in 2008 was 5.52 million tonnes. This represents over a quarter of all controlled waste arisings in Scotland.

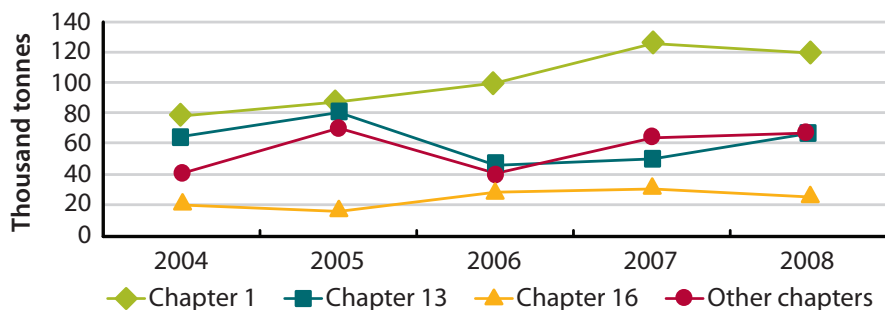
Following an initial increase in the waste managed between 2004 and 2005 there has been a steady fall since then. In 2008, 1.15 million tonnes (17%) less waste was managed than in 2005. This is largely due to less mineral wastes being managed.

Relevant exempt activities are those with a statutory requirement to report data to SEPA. In 2004 this requirement related to paragraphs 7, 9 and 19 only but was extended to include paragraphs 8, 10, 12 and 46 in 2005. Between 2004 and 2008 there were no paragraph 46 exemptions in Scotland. There are no statutory reporting requirements for the remaining exempt activities.

Exempt activities are lower risk waste management activities, such as certain reclamation and recycling activities, that are not usually seen as a threat to the environment or human health. They are exempt from the need to obtain a waste management licence or pollution prevention and control permit but they are required to register with SEPA.

Supporting information on exempt activities can be found on page 31.

## Special waste consigned to treatment plants in Scotland 2004–2008



| Waste type by EWC* 2002 chapter code | Tonnes         |                |                |                |                |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|
|                                      | 2004           | 2005           | 2006           | 2007           | 2008           |
| Chapter 01                           | 78,685         | 87,122         | 99,522         | 125,974        | 119,378        |
| Chapter 07                           | 16,089         | 20,849         | 8,676          | 9,067          | 15,205         |
| Chapter 13                           | 65,348         | 80,971         | 46,495         | 50,471         | 66,601         |
| Chapter 16                           | 20,423         | 16,374         | 28,416         | 31,025         | 25,359         |
| Chapter 19                           | 6,437          | 22,382         | 6,941          | 5,230          | 4,536          |
| Other chapter codes                  | 18,677         | 27,516         | 26,723         | 49,919         | 47,856         |
| <b>Total</b>                         | <b>205,659</b> | <b>255,214</b> | <b>216,772</b> | <b>271,686</b> | <b>278,935</b> |

\* European Waste Catalogue

The quantity of special waste consigned (sent) to treatment plants in Scotland in 2008 was approximately 279,000 tonnes. Since 2004 there has been an upward trend in the quantity of special waste treated, but there has been considerable variability in the year on year changes.

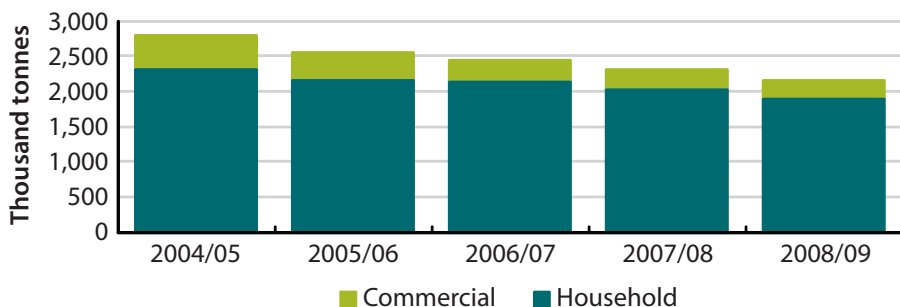
The waste managed by treatment plants in Scotland includes not only waste originating in Scotland but also from England, Northern Ireland and Wales. In 2008, 245,000 tonnes (88%) originated in Scotland, 21,000 tonnes (8%) from outside Scotland and 13,000 tonnes (4%) where the origin was unknown. In addition, about 72,000 tonnes of special waste produced in Scotland were sent to treatment plants in England and Wales.

Special waste can be treated by physical, chemical or biological processes in order to produce a material that is suitable for reuse, recycling, further processing or safe disposal.

Special wastes are wastes that pose particular risks to human health and the environment. In the rest of the UK they are referred to as hazardous waste.

Supporting information on the European Waste Catalogue (EWC) 2002 chapter codes can be found on pages 29 and 30.

## Scottish municipal waste disposed – breakdown by type 2004–2005 to 2008–2009



| Waste type           | Tonnes           |                  |                  |                  |                  |
|----------------------|------------------|------------------|------------------|------------------|------------------|
|                      | 2004/05          | 2005/06          | 2006/07          | 2007/08          | 2008/09          |
| Household            | 2,307,863*       | 2,151,025        | 2,127,233*       | 2,021,881        | 1,878,156        |
| Commercial           | 489,222*         | 391,994          | 310,966*         | 285,107          | 263,054          |
| Other non household† | 13,757           | 30,529           | 21,192*          | 24,275           | 19,464           |
| <b>Total</b>         | <b>2,810,842</b> | <b>2,573,548</b> | <b>2,459,391</b> | <b>2,331,264</b> | <b>2,160,674</b> |

\* Updated data.

† Includes mixed industrial.

These pages present information on the municipal waste disposed of by Scottish local authorities. This page shows the waste split by source and the next shows the waste split by disposal method. The minor differences between the totals in the tables for 2004–2005 and 2005–2006 are due to the data being reworked to meet the revised definition of municipal waste that commenced in 2006–2007.

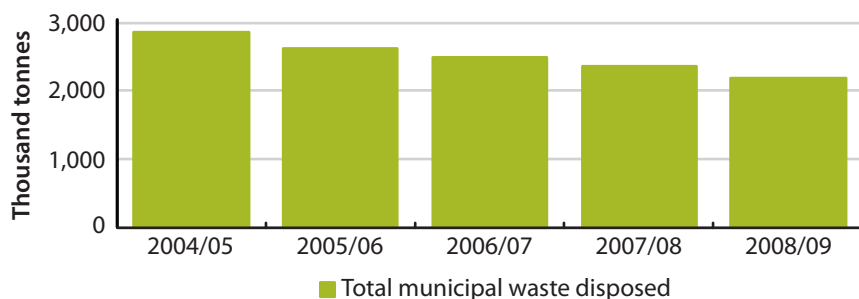
In 2008–2009, approximately 2.16 million tonnes (66%) of the municipal waste managed by Scottish local authorities were disposed of. Of this, 1.88 million tonnes (87%) originated from households and 0.26 million tonnes (12%) from commercial premises.

Between 2004–2005 and 2008–2009 the quantity of household waste disposed of decreased by 19% and commercial waste by 46%. The decrease in household waste may be accounted for by waste that was previously disposed of now being recycled or composted. However the drop in commercial waste disposed of cannot be completely explained by the increase in commercial waste recycled or composted. During the period 2004–2005 to 2008–2009 the total amount of commercial waste managed by local authorities dropped by 38%. This has also contributed to the fall in commercial waste disposed.

Details on municipal waste targets are given on page 32.



## Scottish municipal waste disposed – breakdown by method 2004–2005 to 2008–2009



| Disposal method | Tonnes           |                  |                  |                  |                  |
|-----------------|------------------|------------------|------------------|------------------|------------------|
|                 | 2004/05          | 2005/06          | 2006/07          | 2007/08          | 2008/09          |
| Landfill        | 2,737,968        | 2,493,538        | 2,398,433        | 2,256,661        | 2,076,388        |
| Incineration    | 74,192           | 80,418           | 60,931           | 74,603           | 84,286           |
| Other           | 458              | 492              | 27               | 0                | 0                |
| <b>Total</b>    | <b>2,812,618</b> | <b>2,574,448</b> | <b>2,459,391</b> | <b>2,331,264</b> | <b>2,160,674</b> |

In 2008–2009, approximately 2.16 million tonnes (66%) of the municipal waste managed by Scottish local authorities were disposed of. Landfilling remained the principal method of disposal, accounting for about 96% of the waste, with the remainder being incinerated with energy recovery.

Between 2004–2005 and 2008–2009 the quantity of municipal waste disposed of decreased by 650,000 tonnes (23%). This resulted from an increase in the amount of municipal waste recycled and composted and the need to meet the targets set by the (then) Scottish Executive to reduce the amount of biodegradable municipal waste landfilled.

The Scottish Government has set long term targets for municipal waste landfilling and energy from waste as part of its plans for a zero waste Scotland. By 2025 no more than 25% of municipal waste should be incinerated with energy recovery and no more than 5% landfilled.

There were two incinerators with energy recovery in Scotland licensed to manage municipal waste during this period: one in Dundee and the other in the Shetland Islands.

It should be noted that in this table the tonnage of waste incinerated refers to the materials lost during the incineration process and not to the waste entering the incinerator. Any materials landfilled or recycled after incineration are included either in the landfilled or recycled totals.

Details of all the targets are given on page 32.

## Controlled waste disposed of to landfill in Scotland 2004–2008



|                              |                           | Thousand tonnes |                 |                 |                 |                 |
|------------------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Waste type by EWC-STAT* code |                           | 2004            | 2005            | 2006            | 2007            | 2008            |
| 3                            | Other chemical wastes     | 39.62           | 24.82           | 24.13           | 24.31           | 27.77           |
| 7                            | Non-metallic wastes       | 54.14           | 31.76           | 34.64           | 21.03           | 30.64           |
| 9                            | Animal and vegetal wastes | 105.93          | 63.71           | 31.46           | 27.62           | 62.35           |
| 10                           | Mixed ordinary wastes     | 3,905.03        | 3,648.24        | 3,523.33        | 3,491.95        | 3,220.30        |
| 11                           | Common sludges            | 25.12           | 91.09           | 59.26           | 41.76           | 42.91           |
| 12                           | Mineral wastes            | 3,520.37        | 3,387.42        | 3,448.18        | 3,621.61        | 2,613.46        |
| Other EWC-STAT codes         |                           | 164.66          | 69.68           | 108.05          | 143.56          | 138.43          |
| <b>Total</b>                 |                           | <b>7,814.87</b> | <b>7,316.72</b> | <b>7,229.05</b> | <b>7,371.83</b> | <b>6,135.85</b> |

\* European Waste Catalogue for Statistics

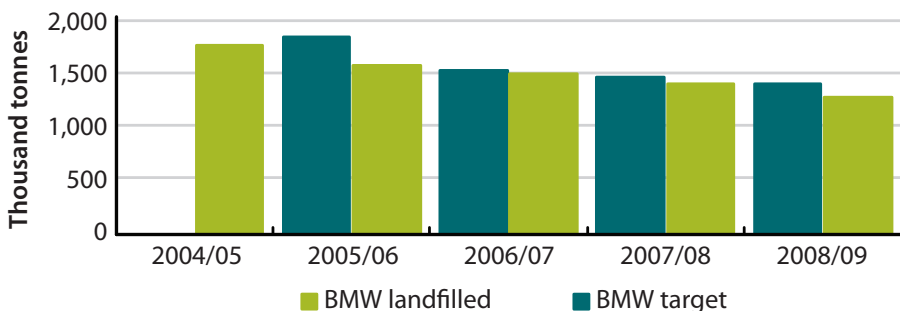
The quantity of controlled waste landfilled in Scotland in 2008 was 6.14 million tonnes. This is a decrease of more than 1.2 million tonnes (17%) over the quantity disposed of in 2007, with much of this reduction due to the completion of restoration work at a number of landfill sites. Waste used in the restoration process, usually soils, is considered as landfilled.

In 2008, the main waste streams landfilled were mineral wastes (including construction and demolition waste) and mixed ordinary wastes (including municipal waste). Together these waste streams comprise 95% of the total. About 31% of waste landfilled originates from households and the remainder is produced by commerce and industry.

The (then) Scottish Executive set targets for reducing the quantity of biodegradable municipal waste sent to landfill by individual local authorities until 2009–2010. These helped drive down the quantity of municipal waste landfilled. The Scottish Government has set a long term target for the landfilling of municipal waste which should help continue this reduction. No equivalent targets have been set for commercial and industrial wastes.

Details of the targets are given on page 32.

## Biodegradable municipal waste landfilled by Scottish local authorities 2004–2005 to 2008–2009



|                | Tonnes    |           |           |           |           |
|----------------|-----------|-----------|-----------|-----------|-----------|
|                | 2004/05   | 2005/06   | 2006/07   | 2007/08   | 2008/09   |
| BMW* target    | -         | 1,800,000 | 1,500,000 | 1,440,000 | 1,380,000 |
| BMW landfilled | 1,724,273 | 1,541,555 | 1,471,026 | 1,369,614 | 1,255,718 |

\* Biodegradable municipal waste

Approximately 1.26 million tonnes of biodegradable municipal waste (BMW) were landfilled by Scottish local authorities. This met the target of landfilling less than 1.38 million tonnes of BMW set by the (then) Scottish Executive. The quantity of BMW landfilled has decreased by an average of 8% annually over the last five years.

Twenty-six local authorities met their annual permitted landfill allowances in 2008–2009, compared with 25 in 2007–2008. The permitted landfill allowances included the amount allocated to them, plus any unused allowances banked from the previous year. To help reach these targets, local authorities recycled more biodegradable waste (such as paper, textiles and cardboard) and introduced, or increased, green waste and kitchen waste collections for composting or treatment.

BMW is the fraction of municipal waste that will degrade within a landfill, giving rise to methane emissions. It includes food waste, green waste, paper and cardboard.

The Landfill Directive aims to reduce the negative effects of landfilling waste. The UK government identified the maximum amount of BMW that the UK can landfill for certain target years up to 2020, and a proportion of these were allocated to Scotland.

In 2005, the (then) Scottish Executive assigned annual BMW landfill allowances to each Scottish local authority until the 2009/10 financial year.

Details on the targets are given in page 32.

## Special waste landfilled in Scotland 2004–2008



| Waste type by EWC*<br>2002 chapter code | Tonnes         |               |               |               |               |
|---|----------------|---------------|---------------|---------------|---------------|
|   | 2004           | 2005          | 2006          | 2007          | 2008          |
| Chapter 01                              | 5,753          | 28            | 9             | 114           | 260           |
| Chapter 13                              | 3,773          | 151           | 140           | 138           | 674           |
| Chapter 17                              | 156,891        | 43,724        | 77,454        | 71,060        | 85,804        |
| Chapter 19                              | 3,921          | 51            | 417           | 3,655         | 208           |
| Other chapter codes                     | 2,494          | 471           | 165           | 352           | 1,198         |
| <b>Total</b>                            | <b>172,832</b> | <b>44,425</b> | <b>78,185</b> | <b>75,319</b> | <b>88,144</b> |

\* European Waste Catalogue

In 2008, approximately 88,100 tonnes of special waste were landfilled in Scotland of which 97% was construction and demolition waste (European Waste Catalogue Chapter 17). Between 2004 and 2008, much of the variability in the quantities of special waste landfilled can be explained by the variations in the amount of contaminated soils arising from large construction projects.

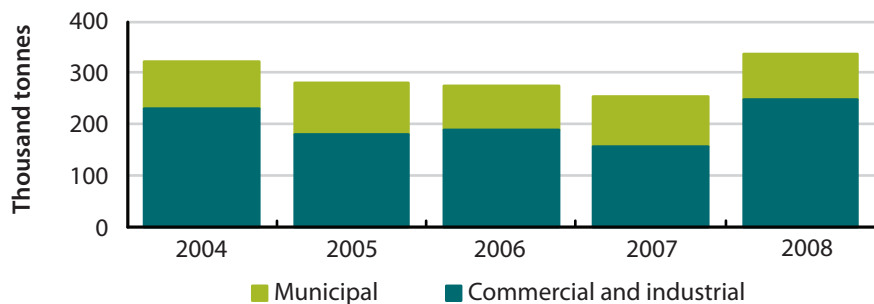
The waste landfilled in Scotland includes not only waste originating in Scotland but also waste sent from England, Northern Ireland and Wales. In 2008, 80,400 tonnes (91%) originated in Scotland, 1,600 tonnes (2%) from outside Scotland and 6,100 tonnes (7%) where the origin was unknown. In addition about 13,200 tonnes of special waste produced in Scotland were sent to landfill sites in England and Wales.

There was one site in Scotland licensed to accept hazardous waste in 2008 and an additional 16 non-hazardous sites were permitted to accept bonded asbestos waste, as stable non-reactive hazardous waste, consigned in a separate cell.

The types and quantities of special wastes landfilled are controlled by the requirements of the Landfill (Scotland) Regulations 2003, which came into force in April 2003.

Supporting information on the European Waste Catalogue 2002 chapter codes can be found on pages 29 and 30.

## Waste inputs to incinerators and co-incineration plants in Scotland 2004–2008



|                            | Tonnes         |                |                |                |                |
|----------------------------|----------------|----------------|----------------|----------------|----------------|
| Waste type                 | 2004           | 2005           | 2006           | 2007           | 2008           |
| Municipal                  | 93,142         | 102,333        | 85,279         | 97,928*        | 88,145         |
| Commercial and industrial† | 228,790        | 177,598        | 188,314*       | 156,225*       | 247,968        |
| <b>Total</b>               | <b>321,932</b> | <b>279,931</b> | <b>273,593</b> | <b>254,153</b> | <b>336,113</b> |

\* Updated data.

† The commercial and industrial waste incinerated does not include any collected as part of municipal waste collection

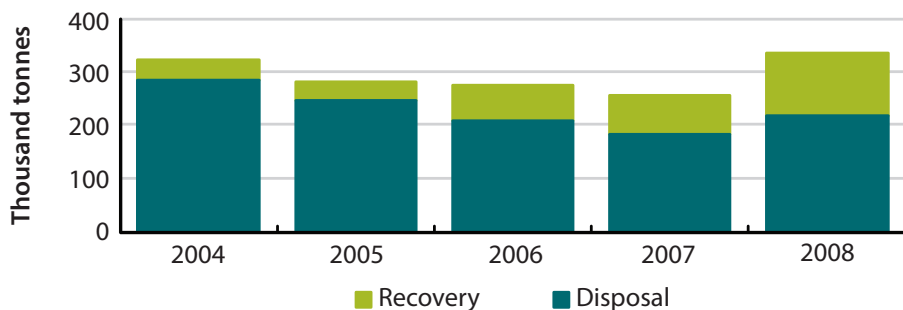
A total of 336,000 tonnes of waste were managed by incinerators and co-incineration plants in Scotland in 2008. Municipal waste accounted for 26% of the total, with commercial and industrial waste making up the remainder.

In 2008, the quantity of municipal waste input to Scottish incinerators was at its second lowest in the past five years. However it should be noted that approximately 14,000 tonnes of refuse derived fuel produced by one local authority were sent to England for incineration in the same year. There were two municipal waste incinerators with energy recovery in Scotland in 2008.

Commercial and industrial waste managed by incinerators and co-incineration plants showed a downward trend between 2004 and 2007. The substantial increase of 82,000 tonnes in 2008 can be explained by the additional quantity of animal litter and remains, and of wood waste incinerated. There were 12 plants handling commercial and industrial wastes in 2008. Of these, nine were incinerators and three were co-incineration plants.

Incineration is the thermal treatment of wastes with, or without, recovery of the combustion heat generated. This includes incineration by oxidation of waste, pyrolysis and gasification. The main purpose of a co-incineration plant is the generation of energy or the production of material products. It either uses wastes as a regular or additional fuel or it thermally treats waste for the purposes of disposal.

## Waste incinerated in Scotland – breakdown by method 2004–2008



|              | Tonnes         |                |                |                |                |
|--------------|----------------|----------------|----------------|----------------|----------------|
| Method       | 2004           | 2005           | 2006           | 2007           | 2008           |
| Recovery     | 37,104         | 35,000         | 66,903         | 71,297         | 119,274        |
| Disposal     | 284,828        | 244,931        | 206,690*       | 182,856        | 216,839        |
| <b>Total</b> | <b>321,932</b> | <b>279,931</b> | <b>273,593</b> | <b>254,153</b> | <b>336,113</b> |

\* Updated data

In 2008 the total amount of waste managed by incinerators and co-incineration plants in Scotland was 336,000 tonnes. Of this waste 119,000 tonnes (35%) were recovered and 217,000 tonnes (65%) were disposed. This was an increase of 82,000 tonnes over 2007.

Between 2004 and 2008 there was an increase of 82,000 tonnes (220%) in the amount of waste recovered. This was largely due to the reporting of the co-incineration of sewage sludge from 2006 onwards and to the opening of a new plant handling wood waste in 2008.

Following a steady decline in the amount of waste disposed of by incinerators and co-incineration plants between 2004 and 2007, there was a sharp increase in 2008. This was due to an additional 43,000 tonnes of animal litter and remains being incinerated.

Waste incineration for recovery covers the incineration and co-incineration of waste in power stations and industrial incineration facilities in order to use the energy for the generation of heat or electricity. Waste incineration for disposal covers the incineration of waste where the main purpose of the incineration is the thermal treatment of waste in order to reduce the volume and the hazardousness of the waste, and to obtain an inert product that can be disposed of.



## Supporting information

### Audit Scotland classification of local authorities

Audit Scotland classifies Scottish local authorities as rural, mixed or urban.

| <b>Rural</b>        | <b>Mixed</b>      | <b>Urban</b>        |
|---------------------|-------------------|---------------------|
| Aberdeenshire       | Angus             | Aberdeen City       |
| Argyll & Bute       | Clackmannanshire  | Dundee City         |
| Dumfries & Galloway | East Ayrshire     | East Dunbartonshire |
| Eilean Siar         | East Lothian      | City of Edinburgh   |
| Highland            | East Renfrewshire | Falkirk             |
| Orkney Islands      | Fife              | Glasgow City        |
| Perth & Kinross     | Inverclyde        | North Lanarkshire   |
| Scottish Borders    | Midlothian        | Renfrewshire        |
| Shetland Islands    | Moray             | West Dunbartonshire |
|                     | North Ayrshire    |                     |
|                     | South Ayrshire    |                     |
|                     | South Lanarkshire |                     |
|                     | Stirling          |                     |
|                     | West Lothian      |                     |

### European Waste Catalogue List of Waste (EWC 2002)

The European Waste Catalogue is a harmonised, non-exhaustive list of waste types established by the European Commission. It categorises wastes based on a combination of what they are, and the process or activity that produces them.

The use of EWC 2002 codes to describe waste on waste transfer notes in Scotland has been statutory since April 2004. The majority of statutory waste data returns received by SEPA, including licensed/permitted site returns, exempt activity returns and special waste consignment notes require waste to be classified according to the EWC 2002.

The catalogue is divided into 20 chapters, most of which are industry-based, although some are based on materials and processes. Each chapter is represented by a two-digit code between 01 and 20 and comprises one or more subchapters; each subchapter is subdivided into individual waste types.

## EWC 2002 chapter codes and abbreviated descriptions

|  |   |
|--|---|
| 01 Mining and minerals                               | 11 Metal treatment and coating processes    |
| 02 Agricultural and food production                  | 12 Shaping/treatment of metals and plastics |
| 03 Wood and paper production                         | 13 Oil and oil/water mixtures industry      |
| 04 Leather and textile production                    | 14 Solvents                                 |
| 05 Petrol, gas and coal refining/<br>treatment       | 15 Waste packaging, wiping cloths           |
| 06 Inorganic chemical processes                      | 16 Wastes not otherwise specified           |
| 07 Organic chemical processes                        | 17 Construction and demolition waste        |
| 08 Paints, varnish, adhesive and inks                | 18 Human or animal health care              |
| 09 Photographic industry                             | 19 Waste/water treatment and water          |
| 10 Thermal process waste (inorganic)<br>and asbestos | 20 Municipal and similar commercial         |

## European Waste Catalogue for Statistics (EWC-STAT)

The EWC-STAT is a (mainly) substance-oriented statistical classification of waste. There are 13 categories represented by a two-digit code between 01 and 13. These are subdivided into individual waste types.

A table of equivalence allows wastes coded in the EWC 2002 coding system to be converted into the EWC-STAT coding. However, because of the way the coding system operates, it is not possible to do the reverse conversion.

### EWC-STAT category and waste type

|                                      |  |
|--------------------------------------|--|
| 01 Chemical compound wastes          | 08 Discarded equipment                       |
| 02 Chemical preparation wastes       | 09 Animal and vegetal wastes                 |
| 03 Other chemical wastes             | 10 Mixed ordinary wastes                     |
| 04 No longer used                    | 11 Common sludges                            |
| 05 Health care and biological wastes | 12 Mineral wastes                            |
| 06 Metallic wastes                   | 13 Solidified, stabilised or vitrified waste |
| 07 Non metallic wastes               |  |

## Exempt activities

There are 48 activities that are exempt from waste management licensing, although they are still subject to statutory controls to prevent environmental pollution and harm to human health. The following paragraphs are required to provide information to SEPA on the types and quantities of waste:

- Paragraph 7 - The treatment of land for agricultural benefit or ecological improvement
- Paragraph 8 - The storage and spreading of sludge
- Paragraph 9 - The reclamation or improvement of land
- Paragraph 10 - Reception and treatment of specified waste at a water treatment works
- Paragraph 12 - Composting
- Paragraph 19 - Waste for construction and other "relevant work"
- Paragraph 46 - The burning of plant tissue or wood at a dock

## Municipal waste definition

The current definition for municipal waste is set out in the *Landfill Allowance Scheme (Scotland) Regulations 2005: Final Guidance*, produced by the (then) Scottish Executive in March 2007. Collected municipal waste is all waste for which the councils make arrangements, with the exclusion of:

- abandoned vehicles;
- road maintenance waste;
- commercial waste that is delivered to local authority owned or run landfill sites, where the local authority has no part in the collection or disposal arrangements that have led to this delivery;
- industrial waste collected from industrial premises and taken for disposal or treatment separately from any other waste;
- construction and demolition waste that is collected and taken for disposal or treatment separately from any other waste.

Bricks and rubble taken to civic amenity sites must be included in collected municipal waste.

Changes in the definition of municipal waste are currently (March 2010) being considered by the Government.

## Municipal waste targets

To assist with its plans for a 'Zero Waste Scotland' the Scottish Government has set targets for certain years for the percentages of municipal waste that should be incinerated with energy recovery, landfilled and recycled.

| Year | Energy from Waste (%)* | Landfilling (%)* | Recycling (%)† |
|------|------------------------|------------------|----------------|
| 2010 | -                      | -                | 40             |
| 2013 | -                      | -                | 50             |
| 2020 | -                      | -                | 60             |
| 2025 | 25                     | 5                | 70             |

\* Maximum target

† Minimum target

## Zero waste

Zero waste is a concept which is increasingly being adopted internationally. It is about reducing the unnecessary use of raw materials, designing sustainable products, preventing waste, and recovering value from products and materials when they reach the end of their lives through recycling, composting or energy recovery.

## Weblinks

This booklet and previous waste data digests, including data tables:

[www.sepa.org.uk/waste/waste\\_data/waste\\_data\\_digest.aspx](http://www.sepa.org.uk/waste/waste_data/waste_data_digest.aspx)

A list of waste management facilities sites in Scotland:

[www.sepa.org.uk/waste/waste\\_data/site\\_capacity\\_\\_infrastructure.aspx](http://www.sepa.org.uk/waste/waste_data/site_capacity__infrastructure.aspx)

Commercial and industrial waste information:

[www.sepa.org.uk/waste/waste\\_data/commercial\\_\\_industrial\\_waste.aspx](http://www.sepa.org.uk/waste/waste_data/commercial__industrial_waste.aspx)

European Waste Catalogue List of Waste (EWC 2002) and European Waste Catalogue for Statistics (EWC-STAT) information:

[www.sepa.org.uk/waste/waste\\_data/reporting\\_definitions\\_and\\_term/coding\\_systems.aspx](http://www.sepa.org.uk/waste/waste_data/reporting_definitions_and_term/coding_systems.aspx)

Exempt activity information:

[www.sepa.org.uk/waste/waste\\_data/statutory\\_data\\_returns/exempt\\_activity\\_data.aspx](http://www.sepa.org.uk/waste/waste_data/statutory_data_returns/exempt_activity_data.aspx)

Municipal waste information:

[www.sepa.org.uk/waste/waste\\_data/municipal\\_waste.aspx](http://www.sepa.org.uk/waste/waste_data/municipal_waste.aspx)

Special waste:

[www.sepa.org.uk/waste/waste\\_data/statutory\\_data\\_returns/special-hazardous\\_waste\\_data.aspx](http://www.sepa.org.uk/waste/waste_data/statutory_data_returns/special-hazardous_waste_data.aspx)

Zero waste information:

[www.sepa.org.uk/waste/moving\\_towards\\_zero\\_waste.aspx](http://www.sepa.org.uk/waste/moving_towards_zero_waste.aspx)

Additional copies of this publication can be obtained through the SEPA website at:

[www.sepa.org.uk/about\\_us/contacting\\_sepa/by\\_email.aspx](http://www.sepa.org.uk/about_us/contacting_sepa/by_email.aspx)

## Glossary

|   |  |
|---|--|
| Biodegradable waste                     | Waste that is capable of undergoing anaerobic (oxygen poor) or aerobic (oxygen rich) decomposition, such as food or garden waste and paper and cardboard.  |
| Co-incineration plant                   | A co-incineration plant is a plant whose main purpose is the generation of energy or production of material products, and which uses waste as a regular or additional fuel, or in which waste is thermally treated for the purpose of disposal.  |
| Commercial waste                        | Waste arising from premises that are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding household and industrial waste [as defined in Environmental Protection Act 1990, section 75 and schedule 4 of the Controlled Waste Regulations 1992 (as amended)]. |
| Composting                              | The process of controlled biological decomposition of biodegradable materials under managed conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat.   |
| Construction and demolition waste (C&D) | Waste arising from the construction, repair, maintenance and demolition of buildings and structures.   |
| Controlled waste                        | Household, industrial and commercial waste or any such wastes that requires a waste management licence for treatment, transfer or disposal (as defined by Environmental Protection Act 1990, section 75).  |
| Disposal                                | Any of the operations provided for in Annex II A of the Waste Framework Directive. This includes incineration and landfilling.   |
| Exempt activity                         | An activity involving waste materials that is exempt from licensing because it meets the requirements detailed in Regulation 17 of the Waste Management Licensing Regulations 1994, as amended by the Waste Management Licensing Amendment (Scotland) Regulations 2003.                          |



|                                   |  |
|-----------------------------------|--|
| Green waste                       | Includes vegetation and plant matter from household gardens, local authority parks and gardens.  |
| Household waste                   | Waste from domestic properties including waste from caravans, residential homes and premises forming part of an educational establishment or part of a hospital or nursing home [as defined in Environmental Protection Act 1990, section 75 and schedule 1 of the Controlled Waste Regulations 1992 [as amended]].  |
| Incineration plant                | Any stationary or mobile technical unit and equipment dedicated to the thermal treatment of wastes, with or without recovery of the combustion heat generated.   |
| Incineration with energy recovery | Incineration with the recovery of energy in the form of power and/or heat.   |
| Industrial waste                  | Waste from a factory (within the meaning of the Factories Act 1961) or from any premises used for, or in connection with: <ul style="list-style-type: none"> <li>• provision of public transport;</li> <li>• public supply of gas, water, electricity or sewerage services;</li> <li>• provision to the public of postal or communication services.</li> </ul> [As defined in Environmental Protection Act 1990, section 75 and schedule 3 of the Controlled Waste Regulations 1992 (as amended).] |
| Kerbside collection               | Any regular collection of recyclable or compostable materials from premises. This excludes collection services delivered on demand.  |
| Landfill                          | Area of land in or on which waste is deposited.  |
| Materials reclamation facility    | A facility to process wastes for the purpose of recovering useful materials using a variety of processes to separate out different materials.  |
| Municipal waste                   | Further details available in the 'Supporting information' section.   |
| National Waste Plan               | The National Waste Plan was published by SEPA in 2003 to help deliver the National Waste Strategy. The plan is currently under review.   |

|   |   |
|---|---|
| Recovery                                | Any operation where the principal result is waste that serves a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.                  |
| Recycling                               | Any recovery operation by which waste materials are reprocessed into products, materials or substances, whether for the original or other purposes. This does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations. |
| Recycling centre/<br>Civic amenity site | A manned site for depositing recyclates. Recycling centres usually accept a wider range of waste materials than recycling points and can include other facilities, such as normal household waste disposal.   |
| Recycling point/<br>bring sites         | An unmanned site with a container, or a collection of containers, for depositing recyclates, eg at a supermarket.   |
| Special waste                           | Any waste which is hazardous waste as defined by Article 1(4) of the Hazardous Waste Directive.   |
| Thermal treatment                       | A broad generic term covering processes that involve the use of heat to treat waste.  |
| Transfer station                        | A site to which waste is delivered for sorting and compacting, prior to transfer to another place for recycling, treatment or disposal.   |
| Waste                                   | Any substance or object in the categories set out in Annex I of the Waste Framework Directive (2006/12/EC) which the holder discards or intends or is required to discard.  |
| Waste arisings                          | The amount of waste generated in a given locality over a given period of time.  |

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