



22<sup>nd</sup> March 2016

# Provisional Statistics on waste managed by local authorities in England including April to June 2015

This release relates to the management of waste under the possession or control of Local Authorities. It includes data on the collection, treatment and disposal of waste and the 'waste from households' recycling rate. Data are reported for the latest available quarter (April to June 2015) and the latest available rolling 12 month period to the end of June 2015.

## **Key points**

- The 'waste from households' recycling rate (including composting and preparing for reuse), was 44.3 per cent in the 12 months to June 2015, down from 45.0 per cent in the previous 12 month period to June 2014. This decrease was driven by a 5.7 per cent fall in 'other organics recycling' against unusually high figures in the previous period, particularly for January to June 2014. There was a marginal 0.2 per cent increase in the amount of dry recycling in the 12 month period to June 2015 compared to the 12 months to June 2014.
- Total waste generated by households over the 12 months to June 2015 was 22.1 million tonnes, a decrease of 0.6 per cent compared to the previous 12 months to June 2014. The tonnage of all materials recycled, composted and prepared for reuse fell by 2.1 per cent to 9.8 million tonnes, driven by the fall in 'other organics recycling' but offset by a marginal 0.2 per cent increase in 'dry recycling'. Residual waste (or black bag waste) increased by 0.6 per cent to 12.3 million tonnes.
- The *quarterly* 'waste from households' recycling rate (including composting and preparing for reuse) was 47.2 per cent in the three month period from April to June 2015. This compares to 48.6 per cent for the same period in 2014.
- For the *quarter April to June 2015*, the amount of local authority managed waste going to landfill was 1.6 million tonnes, incineration was 1.7 million tonnes and recovery was almost 0.4 million tonnes.

Data revisions: None.

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### **Statistical Consultation**

Defra are at present consulting on the frequency of publishing the quarterly Local Authority Collected Waste Statistics. Depending on the outcome of this <u>Statistical Consultation</u> which closes on the 24<sup>th</sup> March, this may be the last quarterly release of these statistics. We will keep users informed of the outcome however you can view publication dates for statistics releases in the Statistical Release Calendar at <a href="https://www.ons.gov.uk/releasecalendar">https://www.ons.gov.uk/releasecalendar</a>.

Datasets for this release as well as for regional and local authorities for the 2014/15 financial year are available at the www.gov.uk website.

## Data notes and developments

A new "Question 100" to replace the various existing treatment questions, was introduced on a voluntary basis from April 2014 and up to around 90 local authorities in England used this new question to report their waste management practices over the quarters in 2014/15. These 90 local authorities represented about 29 per cent of all total local authority waste. Q100 became mandatory in April 2015 where all local authorities in England reported under Q100. This is the first statistical release presenting waste statistics for all local authorities in England using Q100.

Q100 provides a more flexible structure that has enabled local authorities to report a more complete and transparent representation of the more complex waste treatment practices that occur that cannot be accurately captured under the old question structure.

It also provides the opportunity for local authorities to report in more detail the further treatment and disposal of certain waste types such as refuse derived fuel (RDF), which would have been a final output previously. As a consequence of Q100 and how the data is presented in this statistical release, waste types which were previously reported under the 'recovery' category (as RDF) will now be reported as waste either sent for incineration or disposed to landfill as a result of this additional information and so exaggerates the change in these figures. The new Q100 has not affected data reported on waste recycled.

## **Usage of the Statistics**

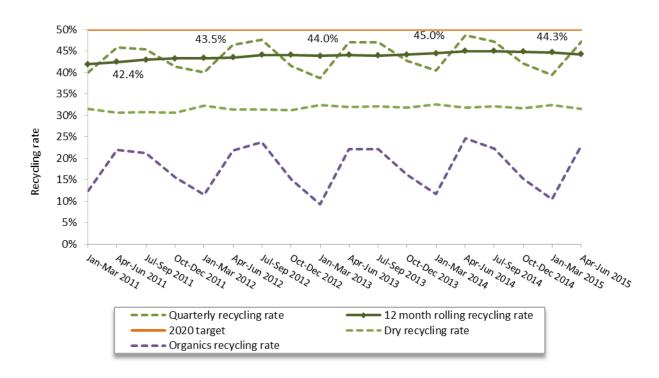
Data on waste management are used to monitor policy effectiveness, particularly the commitments in the <u>Waste Review</u> and to support policy development in the context of the recycling target set out in the Waste Framework Directive (2008/98/EC). The underlying data held in WasteDataFlow are also used extensively by local and central government, the waste industry and the public. Data are reported by all local authorities, often from management information supplied by their waste management contractor.

Factors affecting household waste recycling range from individual household behaviours, the advice and collection services provided by local authorities, the cost of waste treatment and disposal and to some extent wider issues such as the state of the economy. Some quarterly waste data show a clear seasonal fluctuation (see Figure 1 below). For example the generation of garden waste is highly seasonal, increasing sharply and pushing up recycling rates in the spring and summer months. For this reason comparisons should be made with the same quarter in previous years or using full 12 month periods and also year to year variations.

About 86 per cent of all waste managed by local authorities is 'waste from households' with the remainder coming from street cleaning, parks and grounds, business and construction. Only a small proportion of the total waste from businesses and construction are covered in these statistics, with most being managed privately.

## Waste from households

Figure 1: The 'waste from households' recycling rate in England to June 2015



Note: recycling is 'recycling, composting and preparing for reuse'.

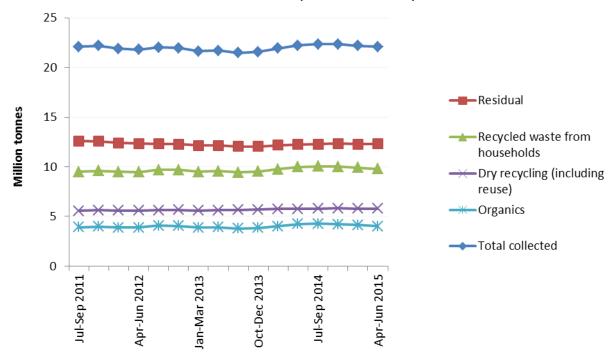
- The 'waste from households' recycling rate reached 44.3 per cent in the 12 months to June 2015. This compares to 45.0 per cent in the 12 months to June 2014 and 44.0 per cent in the 12 months to June 2013. See Table 1, Table 2 and Figure 1. In total almost 9.8 million tonnes of 'waste from households' was sent for recycling, including composting and preparation for re-use.
- Dry recycling is the largest contributor to the 'waste from households' recycling rate and increased slightly by 0.2 per cent to 5.8 million tonnes in the 12 months to the end of June 2015 compared to the same period to June 2014.
- Other organics' is the second largest contributor to the 'waste from households' recycling rate. This is more subject to seasonal variation related to the weather. At 3.7 million tonnes in the 12 months to June 2015, it was 5.7 per cent lower compared to the same period to June 2014 but 6.7 per cent higher than the 12 month period ending June 2013. The tonnage of organic waste sent for recycling for the period January to June 2014 was unusually high compared to the lower tonnages of organic waste sent for recycling for the periods January to June 2013 and January to June 2012. Garden waste forms part of the organics recycling tonnage and weather has a large influence on the amount of garden waste produced.

- The quarterly 'waste from households' recycling rate (including composting and preparing for reuse) was 47.2 per cent in the three month period from April to June 2015. This compares to 48.6 percent for the same period in 2014; the decrease was largely driven by a 9.1 per cent decrease in 'other organics' recycling. 'Other organics' recycling made up 46 per cent of all recycling in April to June 2015 compared to 48 per cent in April to June 2014. See Table 1 and Figure 1.
- There is an EU target for the UK to recycle at least 50 per cent of waste generated by households by 2020.

Table 1: The 'waste from households' annual and quarterly recycling rates in England to June 2015

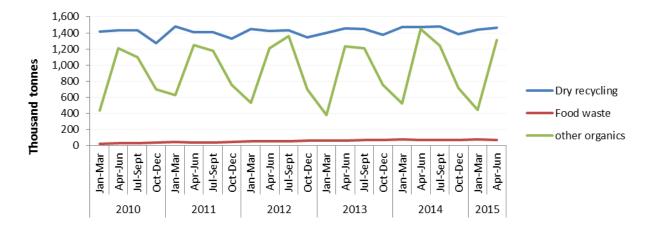
Annual recycling rates		Quarterly recycling rates		
12 months to the end:	Rolling 12 month 'Waste from households' recycling rate	Quarterly period Apr to Jun	Quarterly 'Waste from households' recycling rate	
June 2011	42.4%	Apr to Jun 2011	45.8%	
June 2012	43.5%	Apr to Jun 2012	46.3%	
June 2013	44.0%	Apr to Jun 2013	47.0%	
June 2014	45.0%	Apr to Jun 2014	48.6%	
June 2015	44.3%	Apr to Jun 2015	47.2%	

Figure 2: Waste from households' generation in England, on a rolling 12 months basis 2012 to 2015 (million tonnes). Based on Table 1 above.



Notes: Total waste from households includes dry recycling/ preparing for reuse and organics. It also includes residual waste (or black bag waste) and rejects from recycling.

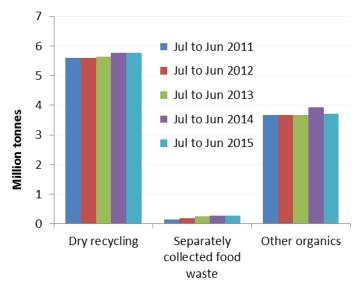
Figure 3: Dry recycling, food waste and other organics recycling on a waste from households' in England, on a rolling 12 months basis 2010 to 2015 (million tonnes). Based on Table 1 above.



• The total waste generated by households over the 12 months to June 2015 decreased by 0.6 per cent to 22.1 million tonnes, compared to the equivalent 12 months in June 2014. This is equivalent to 407 kg per person over the 12 months to June 2015 compared to 413 kg per person for the equivalent 12 months in 2014. And almost 9.8 million tonnes was 'waste from households' which was sent for recycling (including composting and preparing for reuse) in the 12 months to June 2015, down 2.1 per cent on the equivalent 12 month period in 2014. See Table 2 and Figure 3.

Residual waste from households (or black bag waste) has increased over the 12 months to June 2015 by 0.6 per cent to 12.3 million tonnes, compared to the previous equivalent 12 month period to June 2014. The increase is mainly due to increases in waste from civic amenity centres and residual waste collected at the kerbside for disposal during the year. See Table 2 and Figure 2.

Figure 4: Breakdown of 'waste from households' sent for recycling in England, 12 months to the end of June, for 2011 to 2015. Based on Table 2 below.



Notes: Recycling includes composting and preparing for reuse.

**Dry recycling** includes paper and card, glass, plastic, waste electrical and electronic equipment (WEEE), scrap metals as well as other materials.

Other organics includes green garden waste, mixed garden and food waste, wood for composting and other compostable waste.

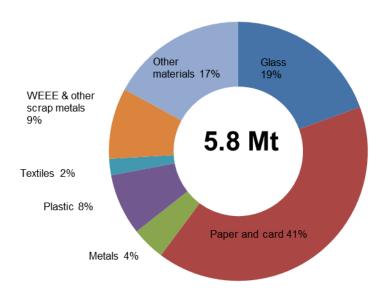
Table 2: Breakdown of 'waste from households' in England by collection type for 12 month periods to the end of June 2012 to 2015

Thousand tonnes					
Collection type	Jul to Jun 2012	Jul to Jun 2013	Jul to Jun 2014	Jul to Jun 2015	% change 2015 over 2014
Total Recycling	9,476	9,551	9,991	9,777	-2.1%
of which: Dry recycling (including preparing for reuse)	5,603	5,631	5,766	5,774	0.2%
of which: Separately collected food waste	197	253	289	289	0.0%
of which: Other organics recycling	3,676	3,668	3,936	3,714	-5.7%
Total Residual	12,323	12,130	12,229	12,298	0.6%
Total waste from households	21,801	21,684	22,222	22,093	-0.6%

Note: Total waste from households includes dry recycling/ preparing for reuse and organics. It also includes residual waste (or 'black bag' waste) and rejects from recycling.

- The tonnage of dry recycling (including waste prepared for reuse) has remained relatively steady for several years. It rose slightly by 0.2 per cent in the 12 months to June 2015 compared to the previous equivalent 12 months. See Table 2 and Figure 3.
- The tonnage of 'other organics' that was composted in the 12 months to June 2015 decreased by 5.7 per cent compared to the previous equivalent 12 months. See Table 2 and Figure 3.
- The tonnage of separately collected food waste sent for composting or anaerobic digestion has increased steadily for several years up to the 12 month period ending June 2014. The tonnage of separately collected food waste sent for composting or anaerobic digestion has remained the same in the 12 month period ending June 2015. See Table 2 and Figure 3.

Figure 5: Composition of 'waste from households' dry recycling, 12 months to June 2015, in England



- A total of 1.5 million tonnes of dry recycling came from households in April to June 2015. For the 12 months to the end of June 2015 it was 5.8 million tonnes.
- Over this latest rolling 12 month period to June 2015, paper and card made up about 41 per cent of dry recycling with glass contributing to a further 19 per cent. Metals made up about 4 per cent, 'waste electrical and electronic equipment (WEEE) including other scrap metals' made up almost 9 per cent of dry recycling and plastics made up a further 8 per cent. Textiles (including footwear) made up 2 per cent and 'other materials' (including wood, furniture and tyres) made up 17 per cent.
- The composition of dry recycling has remained similar since 2010 with minimal variation across the different quarters of the year.

## Management of all Local Authority collected waste

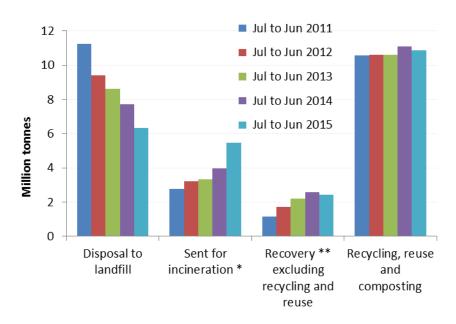
Local authority collected waste consists of all waste from households', street sweepings, municipal parks and gardens waste, beach cleansing waste and waste resulting from the clearance of fly-tipped materials plus some commercial or industrial waste. For further information see <u>definition of terms</u> on gov.uk website.

Local Authorities report on the treatment of waste collected. The question structure captures recycling (including composting and preparation for reuse) of separately collected waste plus any additional recyclate extracted from the residual stream. Waste sent to landfill relates to waste sent directly to landfill or rejects from other processes which are then sent to landfill. Waste sent to incineration relates to waste sent direct to incineration or waste which is eventually disposed of for incineration after other treatment processes.

There is another category treatment termed 'recovery' which includes compost like output which is produced from residual waste from mechanical biological treatment, refuse derived fuel (RDF) which is an output from several intermediate treatments, plus incinerator bottom ash (IBA) and IBA metal which are outputs from waste which is incinerated. The original question structure did not fully capture the full complexity of the waste treatment processes which have evolved. In particular the production of RDF from intermediate treatment would have been a reporting end point and recorded under 'recovery', even though in practice it is likely to undergo further treatment/disposal such as incineration or disposal to landfill. However this information was not captured.

The new Q100 data structure which has now been used by all Local Authorities from April 2015, now enables Local Authorities to record this further information where this is available. This introduces some unavoidable inconsistency in the data where information on the further treatment of RDF is provided. This will result in a lower tonnage being recorded under 'recovery' and higher tonnages being recorded under incineration or landfill. Therefore interpretation of trends requires particular care especially when looking at the quarterly data for April to June 2015 against previous quarters. Any apparent increases in waste sent to landfill or incineration may be due to the change in the level of information recorded. This is more apparent when looking at the quarterly data for April to June 2015 compared to other quarters and will become more marked for annual trends once data become available for later quarters. It is not straightforward to separate out trends based just on this change in recording especially given the situation for 2014/15 when there were between 50 and 90 Local Authorities using Q100 in different quarters. There is no impact on the recycling figures.

Figure 6: Management of all Local Authority collected waste in England, 12 months to end June, for 2012 to 2015



Notes: Based on 12 month rolling period to June of each year, up to June 2015.

\*Sent for incineration: Treatment type for 'Incineration with energy recovery' accounts for around 98% of the total tonnage.

\*\*Recovery includes CLO (compost like output), IBA and IBA metals (incineration bottom ash and metals). Prior to Q100 RDF (refuse derived fuel) was an end point for reporting where waste went through intermediate treatment and used to be classed as recovery. However through the introduction of Q100 RDF further treatment of RDF is now captured (often incineration with energy recovery) and is reflected in the reporting.

Table 3: Management of all Local Authority collected waste in England, 12 months to end June, for 2012 to 2015

Thousand tonnes Management of Jul to Jun Jul to Jun Jul to Jun Jul to Jun **Local Authority** 2012 2013 2014 2015 collected waste Disposal to 8,617 7,713 9,394 6,331 landfill Disposal by 3,229 3,324 3,961 5,459 incinerator Total disposal to landfill and 12,624 11,941 11,674 11,790 incineration Recovery excluding 1,727 2,220 2,588 2,423 recycling and reuse Recycling, reuse 10,601 10,604 11,103 10,874 and composting

Notes: **Recovery** - means any operation the principal result of which is waste serving 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.

 The combined amount of local authority managed waste disposed of to landfill and incineration was 11.8 million tonnes in the 12 months to June 2015 compared to 11.7 million tonnes for the same period in 2014. See Table 3 and Figure 5.

## Management of all Local Authority collected waste - latest quarterly data

It is not appropriate when referring to the management of waste for landfill, incineration or recovery to compare the current quarterly data that is April to June 2015 with any of the previous quarterly data. However comparisons can be made with the data categorised as recycling.

## Landfill

 Of the total 1.6 million tonnes of local authority managed waste sent to landfill, 1.2 million tonnes was sent direct in April to June 2015. Landfill Tax continues to be the main driver for authorities to reduce waste to landfill.

#### Incineration

 Of the total 1.7 million tonnes of local authority managed waste sent to incineration, over 1.5 million tonnes was sent direct in the period April to June 2015.

## Recovery

 The amount of local authority waste recovered in the period April to June 2015 was over 362 thousand tonnes compared to 675 thousand tonnes for the same period in 2014.

## Recycling

 The amount of local authority waste sent for recycling was nearly 3.2 million tonnes in April to June 2015 compared to 3.3 million tonnes for the same period in 2014.

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

#### Data uses

Data on waste are used to monitor policy effectiveness, particularly the commitments in the <u>Waste Review</u> and to support policy development. These data also help the UK meet legislative reporting targets on recycling rates set out in the Waste Framework Directive (2008/98/EC) and comply with the Waste Statistics Regulation (2002/2150/EC). These data are used extensively by local and central government, the waste industry, researchers and also 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: <a href="mailto:wasteStatistics@defra.gsi.gov.uk">WasteStatistics@defra.gsi.gov.uk</a>.

## **Revisions Policy**

Defra will provide information about any significant revisions made to information published in this statistics release and the associated datasets. Revisions could occur for a variety of reasons, including backdating to reflect methodological improvements or the finalisation of data from third parties which was unavailable or provisional at the time of publishing.

## Methodology

Data for this release came from a snapshot of the WasteDataFlow database taken at the end of January 2016. WasteDataFlow is a UK wide system managed by Defra in collaboration with Devolved Administration partners that is used to record the collection, treatment and disposal of local authority waste. First results using this database were produced for 2004/05 with earlier estimates of waste available from the Municipal Waste Management Surveys.

The tonnage of waste 'sent for reuse, recycling and composting' is that which is accepted by the re-processor. As such it excludes any recycling rejects that occur during collection, sorting or further treatment up to and including the gate of the reprocessor. Waste diverted for recycling from the residual (or 'black bag waste') stream by further processing is included in the recycling tonnages.

## New question structure for treatment and disposal questions (Q100)

A new question titled Q100 replaced a number of existing questions on waste treatments and disposal methods and was introduced and set up in the WasteDataFlow online system in April 2014 and became mandatory in April 2015 for Local Authorities in England. Q100 is already being used in Wales and Scotland by all the authorities.

There were approximately 90 authorities in England using Q100 on a voluntary basis during the period April 2014 to March 2015. Q100 was mandatory from April 2015 for all local authorities in England. The introduction of this new question enables local authorities to more accurately report what happens to their waste as it goes through the waste management chain.

Q100 provides a more flexible structure that has enabled local authorities to report a more complete and transparent representation of the more complex waste treatment practices that occur that cannot be accurately captured under the old question structure.

It also provides the opportunity for local authorities to report in more detail the further treatment and disposal of certain waste types such as refuse derived fuel (RDF), which would have been a final output previously. As a consequence of Q100 and how the data is presented in this statistical release, waste types which were previously reported under the 'recovery' category (as RDF) will now be reported as waste either sent for incineration or disposed to landfill as a result of this additional information and so exaggerates the change in these figures. The new Q100 has not affected data reported on waste recycled.

There is no impact on the recycling tonnages or recycling rate.

### Data quality assurance

All local authorities provide data into WasteDataflow. Several stages of data validation are carried out by the local authority submitting the data, the WasteDataFlow contractor, the Environment Agency and Defra.

The WasteDataFlow contractors check each return for completeness and data consistency. Data are checked against appropriate threshold values specified by the Environment Agency which take into account the expected level of variance. There is an on-line validation process which compares the data for the current quarter against the data for the equivalent quarter for the previous year.

Once the data have been validated by the contractor, further validation checks may be undertaken by the Environment Agencies on any specific data queries raised which focus on 'other/exempt' destinations, the comparison of Waste Disposal Authority/Waste Collection Authority data returns, and the review of the destinations of materials sent for recycling. Trend and outlier analysis on key measures at an aggregate and individual Local Authority level are undertaken by Defra. Details of the validation process are available on the WasteDataFlow website.

## **EU** recycling target

Commission Decision 2011/753/EU allow a choice of four options and calculation methods for the calculation of the target to recycle at least 50% of household waste and similar by 2020. Each Member State must use the calculation method that corresponds to the reuse and recycling option that it has chosen to apply the target to. The UK currently applies the target to the third option: "the preparation for reuse and the recycling of household waste". This means that the UK must use calculation method 3 set out in the Decision and use national data to report on the recycled amount of household waste. "Household waste" is defined at Article 1(1) of the Decision as "waste generated by households".

EU Legislation on waste is currently under review. The EU published their proposals for the EU Circular Economy Package on 2<sup>nd</sup> December 2015. They are proposing changes to 6 waste Directives to simplify them and to "stimulate Europe's transition towards a Circular Economy". The proposals include new definitions of various types of waste and recycling so they are consistent across Directives, some reductions in administrative burdens for SMEs and a series of stretching targets for landfill diversion and recycling.

## Glossary of terms and measures

## Waste from households

The 'waste from households' measure was introduced to statistical publications by Defra in May 2014. It is also used to construct a harmonised UK indicator based comparable calculations for each of the four UK countries. This provides a consistent approach with which to report household recycling rates at UK level under the Waste Framework Directive (2008/98/EC).

'Waste from households' is a narrower version of the 'household waste' measure which was used previously. The difference is that 'waste from households' excludes local authority collected waste types not considered to have come directly from households, such as street bins, street sweepings, parks and grounds waste and compost like output

(CLO) from Mechanical Biological Treatment (MBT) plants. Further information on the difference has been published on the gov.uk <u>website</u> and is summarised in the table below.

We have continued to report the 'household waste' recycling measure in our annual publication on a financial year basis to maintain consistency and continuity with the existing data series and in order to meet the wider needs of users. However it is no longer reported in the quarterly releases on recycling which will report the 'waste from households' measure only. The latest data for 2014/15 can be downloaded on the gov.uk website.

Recycling (including composting and reuse)	Waste from Households recycling	Hous ehold waste recycling	
from households and other premises similar to households, CA sites, Bring banks	✓	✓	
from street bins	×	✓	
from household-related parks and grounds	Community skips only	✓	
from soil	×	✓	
from rubble and plasterboard	×	×	
from compost-like output from MBT plant	×	✓	
from incineration bottom ash (IBA) & IBA metals	×	×	
other, from residual streams	✓	✓	
recycling rejects	×	×	

Res idual waste	Residual waste from households	Hous ehold waste residual	
from regular household collection	✓	✓	
from civic amenity sites	✓	✓	
from bulky waste	✓	✓	
from other household waste	✓	✓	
from street cleaning/sweeping	×	✓	
from gully emptying	×	✓	
from separately collected healthcare waste	×	✓	
from asbestos waste	×	✓	

## **Useful links**

Scotland

<u>http://www.environment.scotland.gov.uk/System\_Pages/</u> Spotfire/Household\_Waste.aspx

Wales

http://new.wales.gov.uk/topics/statistics/theme/environment/wasterecycle/?lang=en

Northern Ireland Published waste data | DOE

Eurostat <a href="http://ec.europa.eu/eurostat/web/waste">http://ec.europa.eu/eurostat/web/waste</a>

Wastedataflow portal <a href="http://www.wastedataflow.org/">http://www.wastedataflow.org/</a>

## A National Statistics publication

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs.

Website: <a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs</a>

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