



5<sup>th</sup> December 2017

## Statistics on waste managed by local authorities in England in 2016/17

This release relates to the collection and management of waste under the possession or control of Local Authorities in England. It covers three principal measures as summarised in the table below. For the official ‘waste from households’ recycling measure, a change in policy has been agreed to now include metal recovered and recycled after incineration (IBA metal) in this recycling measure. Indicative estimates are included in this statistical release for 2016. Due to changes in the question structure and reporting which came in only from April 2015 it is not possible to provide reliable and consistent estimates for earlier years.

The next update to this notice and datasets will be in November/December 2018.

### What data are confirmed in this release?

Measure	Time period
<p>Waste from households</p> <p>This is the official measure which is used as the basis for reporting at a harmonised UK level against the waste Framework Directive.</p>	<p>First publication of figures for the 2016 calendar year and for 2016/17 financial year and updated figures for 2015. Quarterly data from April 2015 to March 2017.</p>
<p>Local authority collected waste</p> <p>This is all waste within the remit of local authorities. It includes household waste plus other non-household waste collected by local authorities.</p>	<p>First publication of figures for the 2016/17 financial year.</p>
<p>Household waste</p> <p>This relates to “waste from households” plus that from street bins, street sweepings, parks and grounds.</p>	<p>First publication of the data for the financial year 2016/17.</p>

For more information about what data is included in the three measures listed in the table above, please see the section on [‘Glossary of terms and measures’](#) and the separate [methodology document](#).

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## Key points

### Waste from Households – 2016 calendar year and 2016/17 financial year (Table 1 and Figure 1)

- The official England waste from households recycling rate for 2016 was 44.9%. This rate includes for the first time the percentage of metal recovered and recycled from waste which has been through incineration. For 2016 this raises the waste from households recycling rate by around 0.7 percentage points.
- Excluding IBA metal would give a waste from households England recycling rate of 44.2 per cent for 2016, up slightly from 43.9 per cent in 2015.
- Total “waste from households” in England increased by 2.5 per cent in 2016 to 22.8 million tonnes from 22.2 million tonnes in 2015. This is equivalent to 412 kg per person, up from 406 kg per person in 2015 an increase of 1.6 per cent.
- Residual waste treated increased by 1.3 per cent to 12.5 million tonnes in 2016 from 12.4 million tonnes in 2015.
- Recycled waste in England rose to 10.2 million tonnes in 2016 from 9.8 million tonnes in 2015, an increase of 3.8 per cent.
- Dry recycling volumes rose to 6.0 million tonnes in 2016 an increase of 3.7 per cent from 5.8 million tonnes in 2015. Other organic waste increased by 3.1% to 3.8 million tonnes from 3.7 million tonnes in 2015. Separate food waste collected for recycling increased by 15.0 per cent in 2016 to 353 thousand tonnes from 307 thousand tonnes in 2015.
- There is an EU target for the UK to recycle at least 50 per cent of waste generated by households by 2020. The England ‘waste from households’ figures seen here make a significant contribution to the UK estimates, which are published in [UK Statistics on Waste](#).
- The most recent quarterly data are for January to March 2017. The rolling 12 month ‘waste from households’ recycling rate to end March 2017 was 45.1 per cent. This is an increase of 0.7 percentage points compared with the previous 12 month period to March 2016. These figures include IBA metal.

### Local Authority and Household Waste – 2016/17 financial year (Table 2)

- Total local authority managed waste in 2016/17 was 26.3 million tonnes, an increase of 0.7 per cent from 26.1 million tonnes in 2015/16.
- Waste sent to landfill decreased by 1.0 million tonnes to 4.1 million tonnes in 2016/17, equivalent to around 16 per cent of all local authority waste. The majority, 3.2 million tonnes, was sent direct to landfill.
- Waste sent for incineration rose to 10.2 million tonnes, an increase of 0.9 million tonnes in 2016/17, with around 7.1 million tonnes being sent direct. Although exact like for like comparisons cannot be made on the amount of waste now being incinerated due to changes in the extent of reporting, the tonnage has

increased sharply and has more than tripled since 2010/11. In 2016/17, 39 per cent of all local authority waste was sent to incineration.

- Existing definitions and methodology have been retained for all local authority and household waste recycling figures; IBA metal is not included.
- The amount of local authority waste sent for recycling in 2016/17 was 11.3 million tonnes, a 1.6 per cent increase on the 11.1 million tonnes in 2015/16.
- There is a wide variation in household waste recycling rates amongst individual local authorities, ranging from 14 to 65 per cent per cent in 2016/17.

Datasets for the national and regional data, as well as data at Local Authority level, including the ex-National Indicator measures are available at the [www.gov.uk](http://www.gov.uk) website.

## **1 Waste from Households – Table 1**

This is the measure that the UK introduced in 2014 for statistical purposes to provide a harmonised UK indicator to report recycling rates at UK level on a calendar year basis under the Waste Framework Directive (2008/98/EC). '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.

There is the introduction of a methodological change this year with metal recovered and recycled after incineration now included in the recycling tonnage. While the extent and consistency of reporting and associated quality assurance are developing and becoming more fully established, the figures need to be regarded as more indicative. Inclusion of IBA metal has been facilitated through the new Q100 reporting structure for waste treatment which all local authorities have been using since April 2015. The IBA metal which is now counted and reported as recycling would previously have been reported as 'recovery' in the waste from households dataset. This methodological change for IBA metal has been applied to the waste from household measures only.

It has been applied to data from April 2015 - it is not possible to apply the change to data before then as the question structure was different so reporting of IBA metal was not as complete. At an overall England level this change in methodology raised the recycling rate for 2016 by around 0.7 percentage points (equivalent to 152 thousand tonnes). For 2015 the waste from households recycling rate would be increased by around 0.4 percentage points (equivalent to around 97 thousand tonnes). Details are shown in Table 1. This is a slight underestimate for the impact for 2015 as data for January to March 2015 use the old question structure so don't fully capture IBA metal for this quarter; estimated to be around 23 thousand tonnes. For more on this change refer to the [Data and Methodology section](#).

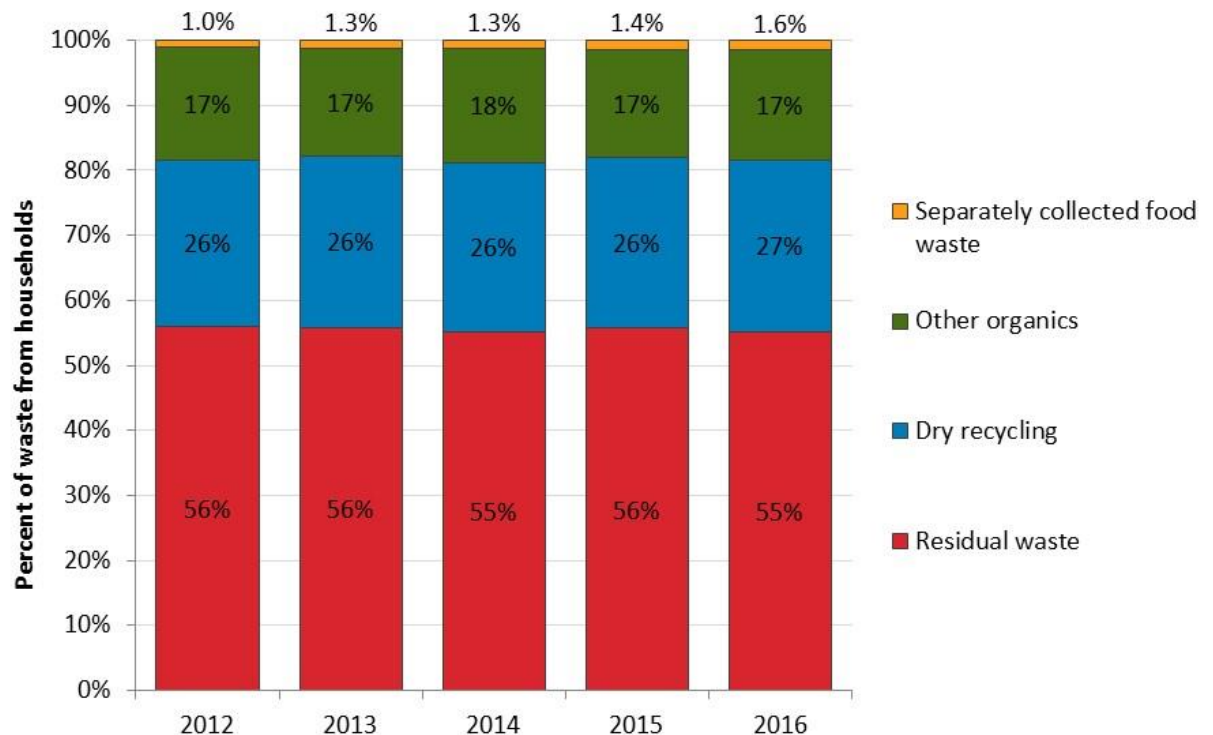
**Table 1 Composition breakdown and recycling rate of ‘waste from households’ in England 2010 to 2016 (thousand tonnes)**

<b>Waste type</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>% change 2016 over 2015</b>
<b>Total Recycling</b> <i>of which:</i>	<b>9,684</b>	<b>9,523</b>	<b>10,025</b>	<b>9,843</b>	<b>10,219</b>	3.8%
Dry recycling <i>of which:</i>	5,652	5,675	5,807	5,830	6,046	3.7%
IBA Metal	:	:	:	97	152	56.9%
Separately collected food waste	230	273	290	307	353	15.0%
Other organics recycling	3,802	3,575	3,928	3,706	3,820	3.1%
<b>Total Residual</b>	<b>12,270</b>	<b>12,038</b>	<b>12,327</b>	<b>12,365</b>	<b>12,529</b>	1.3%
<b>Total waste from Households</b>	<b>21,956</b>	<b>21,564</b>	<b>22,355</b>	<b>22,225</b>	<b>22,770</b>	2.5%
<b>Waste from households recycling rate (including IBA metal)</b>	:	:	:	<b>44.3%</b>	<b>44.9%</b>	<b>0.6 percentage points</b>
<b>Waste from households recycling rate (excluding IBA metal)</b>	<b>44.1%</b>	<b>44.2%</b>	<b>44.8%</b>	<b>43.9%</b>	<b>44.2%</b>	<b>0.4 percentage points</b>

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. IBA metal is included in the recycling figures from April 2015.

- The total volume of “waste from households” in England increased by 2.5 per cent between 2015 and 2016 to 22.8 million tonnes.
- Recycled waste in England rose to 10.2 million tonnes in 2016 from 9.8 million tonnes in 2015, an increase of 3.8 per cent.
- The England ‘waste from households’ recycling rate was 44.9 per cent in 2016, an increase of 0.6 percentage points from the 2015 rate of 44.3 per cent. The IBA metal contributed amounted to 97 and 152 thousand tonnes in 2015 and 2016 respectively.
- When IBA metal is excluded, the waste from households recycling rate is 44.2 per cent in 2016, an increase of 0.4 percentage points from 43.9 per cent in 2015.
- Residual waste increased by 1.3 per cent to 12.5 million tonnes in 2016 compared to 2015. However as a proportion of total ‘waste from households’ it decreased by 0.6 percentage points to 55.0 percent of the total. See figure 1 below.

**Figure 1: Waste composition: waste stream proportions as a percent of total “waste from households” 2012-2016, England**



**Notes**

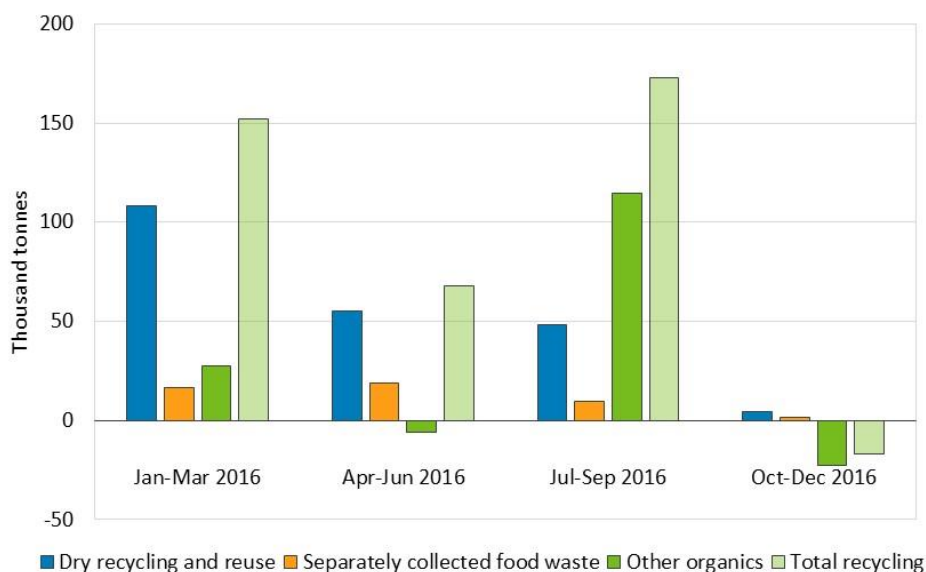
**Residual waste** includes residual waste from households’ regular collections (black bags), bulky waste, residual from civic amenity centres and rejects from recycling. It excludes waste diverted for recycling from residual waste.

**Dry recycling** includes paper and card, glass, plastic, waste electrical and electronic equipment (WEEE), scrap metals including those reclaimed from incinerator bottom ash as well as other materials.

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

- Dry recycling volumes rose to 6.0 million tonnes in 2016 an increase of 3.7 per cent from 5.8 million tonnes in 2015. IBA metal accounted for around 55 thousand tonnes of this increase. Figure 2 below, shows the change in recycled wastes for individual quarters.
- Other organic wastes such as garden waste increased by 3.1 per cent to 3.8 million tonnes from 3.7 million tonnes in 2015, mainly due to higher volumes of garden waste between July to September 2016 compared to the same period in 2015. Other organic waste tonnages are directly linked to the season and weather or growing conditions and this is reflected in the quarterly figures – see figure 3 below.

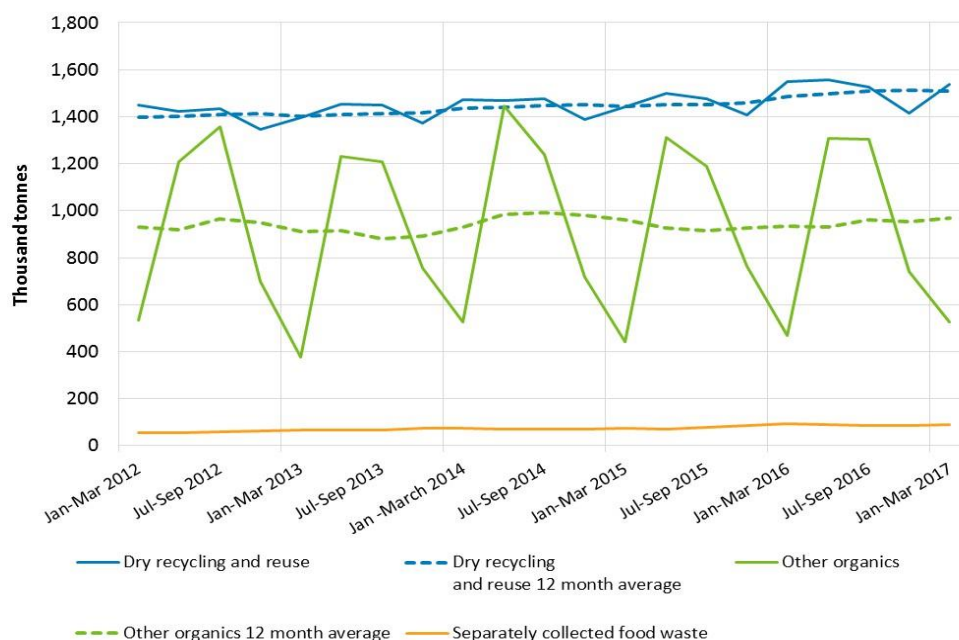
**Figure 2: Quarterly year on year change in volume of recycled waste from households 2016 compared to 2015 England (thousand tonnes)**



**Notes**

The change in tonnage of dry recycling in Jan – March 2016 is accentuated by the inclusion of IBA metal in the recycling total as it was not captured through reporting in Jan – March 2015. . If that were that not the case the change shown for Jan – March 2016 above would be approximately 20 thousand tonnes lower.

**Figure 3: Waste from households – quarterly recycling volumes by waste type in England, 2010 to Jan-Mar 2017 and 12 month moving averages (thousand tonnes)**



**Notes**

**Dry recycling** includes paper and card, glass, plastic, waste electrical and electronic equipment (WEEE), scrap metals including those reclaimed from incinerator bottom ash as well as other materials.

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

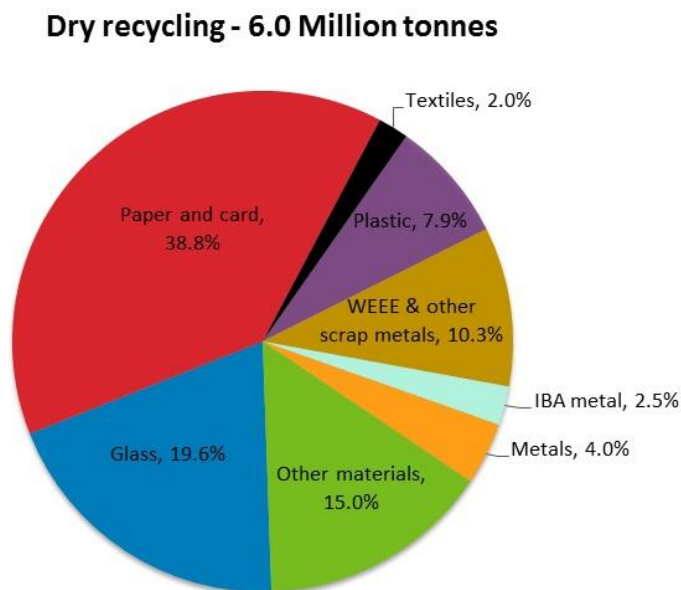
- The amount of food waste sent for composting (including anaerobic digestion) has increased by 15 per cent in 2016 to 353 thousand tonnes from 307 in 2015. Despite this large increase, food waste collected separately remains a very small proportion of total waste collected – see figure 1 above.
- Dry recycling formed 59.2 per cent of the overall 2016 recycled waste total, this was unchanged from 2015. Other organics and food waste formed 40.8% of the total.
- Figure 3a below shows quarterly dry and organic recycling as a proportion of total waste from households, and a smoothed 12 month rolling average for the overall recycling rate.
- There is an EU target for the UK to recycle at least 50 per cent of waste generated by households by 2020 – this is shown as the red line at the top of the chart.

**Figure 3a: The ‘waste from households’ quarterly recycling rate in England, Jan-Mar 2012 to Jan-Mar 2017**



Notes:  
Recycling is ‘recycling, composting and preparing for reuse’.

**Figure 4**      **Composition of ‘waste from households’ dry recycling in England, 2016**



- The tonnage of dry recycling from households in England including IBA metals has increased by 7.0 per cent over the last 5 years and stood at 6.0 million tonnes in 2016. It constitutes 26.6 per cent of total waste from households.
- In 2016 paper and card made up around 39 per cent of the dry recycling total (figure 4 above), with glass contributing to a further 20 per cent. Metals and metals from Incinerator bottom ash made up 6.5 per cent, and ‘waste electrical and electronic equipment (WEEE) including other scrap metals’ made up 10.3 per cent. Plastics made up 7.9 per cent of the dry recycling total. Textiles (including footwear) made up 2.0 per cent and ‘other materials’ (including wood, furniture and tyres) made up 15 per cent.
- The relative proportions of dry recycling over the 5 years 2012 to 2016 are similar for many items. Paper and card has seen a gradual decrease over that time and in 2016 accounts for 5.4 percentage points less of the total than in 2012, whilst the proportions of plastics and WEEE have each increased by 1.7 and 2.0 percentage points respectively in the last couple of years.



## **2 Waste from households – Financial year figures**

- The total volume of “waste from households” in England increased by 1.1 per cent between 2015/16 and 2016/17 to 22.7 million tonnes.
- Recycled waste in England rose to 10.3 million tonnes in 2016/17 from 10.0 million tonnes in 2015/16, an increase of 2.6 per cent.
- In 2016/17 the recycling rate for ‘waste from households’ was 45.1 per cent, up 0.7 percentage points on 2015/16. The recycling rate for the latest quarter - January to March 2017 was 41.4 per cent, 1.0 percentage point up on the same period the previous year. The volume of dry recycling increased by 1.6 per cent to 6.0 million tonnes. Organic recycling increased by 4.2 per cent to 4.2 million due to increases in both ‘other organics’ and ‘food waste’.
- Residual waste remains unchanged at around 12.5 million tonnes in 2016/17. However as a proportion of total ‘waste from households’ it has decreased by 0.7 percentage points to 54.8 per cent of the total.

## **3 Management of all Local Authority collected waste - financial year figures**

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 [definition of terms](#) on gov.uk website.

As a result of extra granularity of data reported through Q100, it is not appropriate when referring to the management of waste for landfill, incineration or recovery to compare too closely the data for April 2015 onwards with any of the previous annual data. In particular there is further reporting of RDF and incineration and outputs from incineration under Q100.

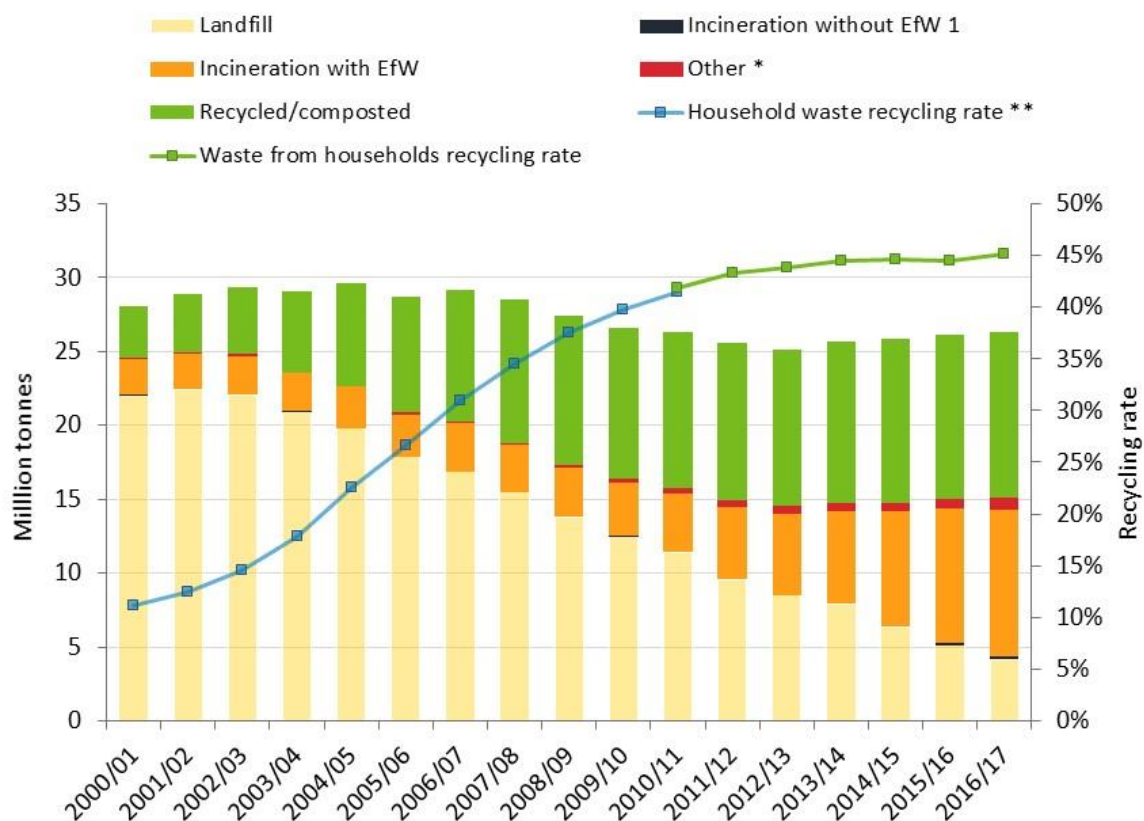
**Table 2 Management of all Local Authority collected waste financial year figures in England 2012/13 to 2016/17 (thousand tonnes)**

<b>Waste disposal method</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2016/17 % change over 2015/16</b>
Landfill	8,514	7,933	6,361	5,133	4,136	-19.4%
Recycled / composted <i>of which:-</i>	10,577	10,931	11,067	11,073	11,252	1.6%
Household waste	9,759	9,980	10,117	10,075	10,329	2.5%
Non household waste	817	950	950	998	923	-7.5%
Total Incineration <i>of which:-</i>	5,504	6,245	7,798	9,250	10,169	9.9%
Incineration with EfW	5,500	6,204	7,773	9,059	9,946	9.8%
Incineration without EfW <sup>1</sup>	4	41	25	192	224	16.6%
Other	526	537	589	668	761	13.9%
<b>Total local authority waste managed</b>	<b>25,120</b>	<b>25,645</b>	<b>25,816</b>	<b>26,124</b>	<b>26,319</b>	<b>0.7%</b>
<b>Recycled / composted waste as a percent of total</b>	<b>42.1%</b>	<b>42.6%</b>	<b>42.9%</b>	<b>42.4%</b>	<b>42.8%</b>	<b>0.4 percentage points</b>

- Around 15.7 per cent of all local authority waste was sent to landfill in 2016/17. This was equivalent to a total 4.1 million tonnes of local authority managed waste and nearly 1.0 million tonnes lower than in 2015/16, a fall of 19.4 per cent. There was 3.2 million tonnes of waste sent direct to landfill in 2016/17, this was 78.2 per cent of the Landfill total compared to 77.5 per cent some 4 million tonnes in 2015/16.
- Around 38.6 per cent of all local authority waste was incinerated<sup>1</sup>. This amounted to 10.2 million tonnes of local authority managed waste, an increase of over 0.9 million tonnes on 2015/16 and off-setting much of the reduction in waste going to landfill. There was 7.1 million tonnes of waste sent direct to incineration in 2016/17, at 70 per cent of the total this proportion was unchanged from 2015/16.
- Landfill tax continues to be the main driver for diverting waste from landfill. Increasing numbers of EfW incineration plants have come on line in recent years and this has provided Local Authorities with a cheaper alternative to landfill gate fees.
- The amount of local authority waste sent for recycling in 2016/17 was 11.3 million tonnes, 179 thousand tonnes up on 2015/16. Overall 42.8 per cent of all local authority waste was sent for recycling in 2016/17 compared to 42.4 per cent in 2015/16.

<sup>1</sup> Incineration with energy recovery/without energy recovery includes incineration bottom ash (IBA) and metals from IBA.

**Figure 5: Management of all Local Authority collected waste and recycling rates in England, 2000/01- 2016/17**



**Notes:**

Incineration with energy recovery/without energy recovery includes incineration bottom ash (IBA) and metals from IBA. This is not impacted by the change in waste from households recycling definition.

\* Other includes waste treated/disposed through other unspecified methods, process and moisture loss.

\*\* The Household waste recycling rate is based on a broader measure of waste and is not directly comparable to the 'waste from households' recycling rate. For further information on definitions refer to the glossary.

\*\*\* From April 2015/16 IBA metal is now included within the Waste from households recycling rate shown on this chart.

**3.1 Household Waste Recycling Rates for England and the regions – see Table 3a of the dataset “Selected waste indicators”.**

The 'household waste' (ex-NI 192) measure is a broader definition of waste than the 'waste from households' measure. The 'household waste' measure includes street bins, street sweepings, gully emptying, parks and grounds waste, soil, and compost like output, separately collected healthcare waste and asbestos.

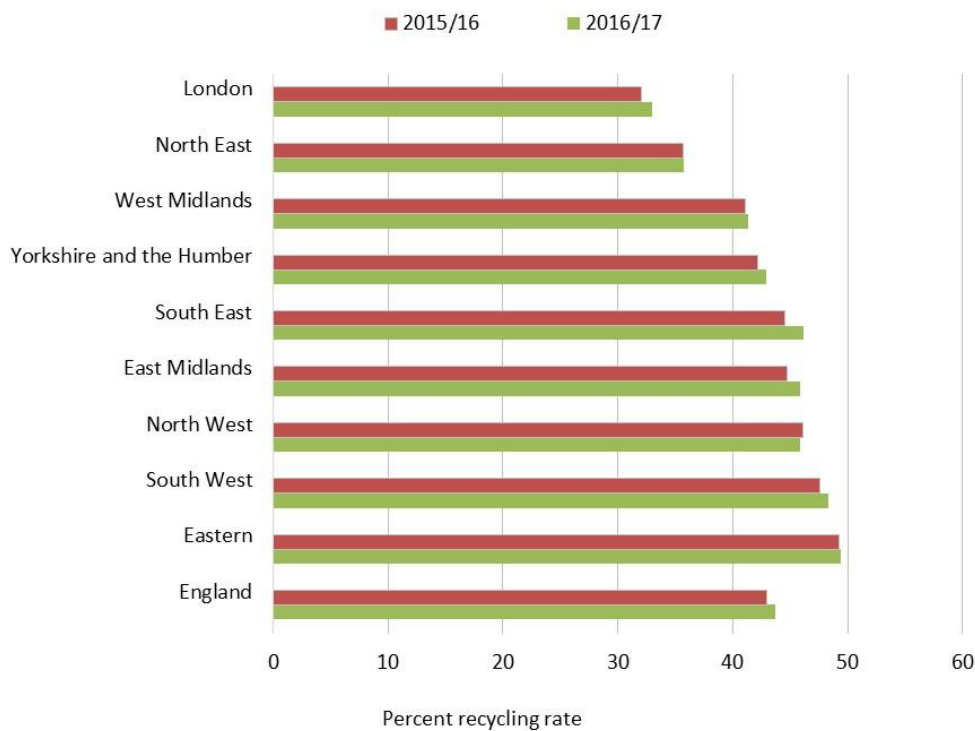
At a regional level there is considerable variation across authorities, influenced heavily by how heavily populated an area is, and the kind of housing and the level of other organic or garden waste collected. For example in built up areas with a high proportion of flats residents may find it difficult or be unwilling to store waste for recycling. Also the same properties will not be producing other organic or garden waste which will significantly reduce recycling levels for those authorities.

Regions with higher rates are likely to be influenced by good householder response to recycling schemes and are also areas where garden waste makes a significant contribution to overall recycling levels.

At a regional level – (see figure 6 below):-

- The London area has the lowest household waste recycling rate, at 33.0% in 2016/17 while Eastern region is the highest at 49.4%
- The South East region had the largest increase in household waste recycling rate up by 1.7 percentage points to 46.2 per cent, while East Midlands and London also had increases in their recycling rate of around 1.0 percentage point. There was no change in the recycling rate for the North East whilst North West was the only region to show a marginal decrease (0.2 percentage points).

**Figure 6: Household waste recycling rates 2015/16 and 2016/17 for England and regions**



**3.1 Household Waste Recycling Rates for Individual Local Authorities – see Table 3 of the dataset “Selected waste indicators”, and Figures 7 and 8 below.**

- At individual Local Authority level, ‘household waste’ recycling rates ranged from 14 per cent to 65 per cent. The average figure for England is 43.7 per cent in 2016/17. This is the same as in 2014/15 and up from on 43.0 per cent for 2015/16.
- There is a tendency for ‘household waste’ recycling rates to be similar in adjacent authorities, although high and low recycling rates are spread across England. Figure 7 shows the geographic distribution of recycling rates in 2016/17. Table 3 below shows the lowest and highest recycling rates in each region.

**Table 3: Local authorities with the highest and lowest recycling rates in each region in 2016/17**

Region	Authority with lowest recycling rate of		Authority with highest recycling rate		Regional average
London	Newham LB	14%	Bexley LB	53%	33%
North East	Stockton-on-Tees Borough Council	26%	Redcar and Cleveland Borough Council	43%	36%
West Midlands	Birmingham City Council	24%	Stratford-on-Avon District Council	61%	41%
Yorkshire and Humber	North East Lincolnshire Council	29%	East Riding of Yorkshire Council	65%	43%
South East	Gosport Borough Council	22%	South Oxfordshire District Council	64%	46%
East Midlands	Bassetlaw District Council	21%	South Northamptonshire District Council	61%	46%
North West	Liverpool City Council	28%	Trafford MBC	61%	46%
South West	Council of the Isles of Scilly	19%	Cotswold District Council	60%	48%
Eastern	Tendring District Council	27%	Rochford District Council	64%	49%

- Newham London Borough Council had the lowest ‘household waste’ recycling rate in England in 2016/17 at 14 per cent. Only 17 per cent of Newham’s total recycled waste from households is green/organic waste.
- Westminster City Council and Lewisham Borough Council both had a ‘household waste’ recycling rate of 17 per cent and 18 per cent respectively. The proportion of recycled waste accounted for by green/organic waste in Westminster was only 0.2% of the total, whilst in Lewisham it accounted for 13 per cent of the recycled household waste total.
- East Riding of Yorkshire Council had the highest ‘household waste’ recycling rate at 65 per cent, with just over 49 per cent of their recycling comprising of green/organic waste. South Oxfordshire District Council and Rochford District Council both achieved 64 per cent ‘household waste’ recycling rates.
- The top 3 performing local authorities in terms of household waste recycling in 2016/17 and 2015/16 are South Oxfordshire District Council, East Riding of Yorkshire and Rochford District Council. Over the last 5 years, South Oxfordshire District Council and Rochford District Council have had an average recycling rate of 66 and 65 per cent respectively, while East Riding of Yorkshire, the top performing council this year has averaged 60 per cent over the 5 years. The proportion of organic/green waste within the household

recycling total for these authorities was 52 per cent for South Oxfordshire, 49 per cent for East Riding and 59 per cent for Rochford.

- The local authority with the highest proportion of organic/green waste of the Household recycled waste total is Tonbridge and Malling Borough Council at 72 per cent. The overall household recycling waste in 2016/17 for this authority was 42 per cent.
- The region with the widest range between highest and lowest recycling rates is the South East where in 2016/17 Gosport Borough council was lowest at 22 per cent (only 6 per cent of Gosport's recycled waste total is green/organic) and South Oxfordshire the highest at 64 per cent, a difference of 42 percentage points.
- There are similar but slightly narrower ranges across most other regions except for the North East, where Stockton on Tees Borough Council had the lowest rate at 26 per cent and Redcar and Cleveland Borough Council the highest at 43 per cent – a difference of just 17 percentage points.
- In the South West the range between the highest – Cotswold district council at 60 per cent and Council of the Isles of Scilly at 19 per cent is 41 per cent. However waste volumes on the Isles are very small and this very low recycling rate has little impact on the overall rate for the region, which at 48 per cent is the second highest regional rate.

**Table 4: Number of authorities in each region showing an increase in their recycling rate in 2016/17 compared to 2015/16**

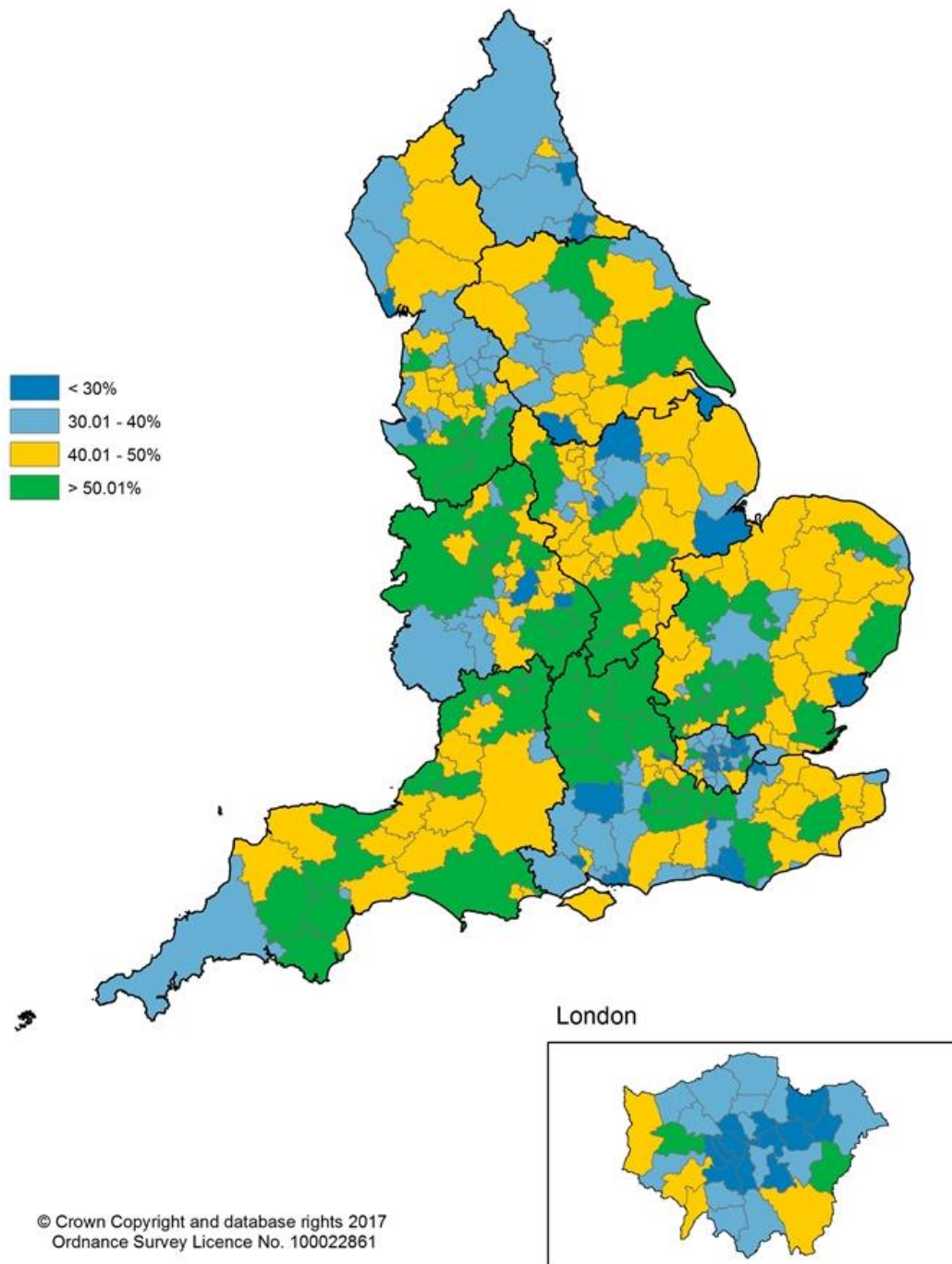
<b>Region</b>	<b>Total number of authorities in region</b>	<b>Number of authorities with an increase in recycling rates in 2016/17</b>	<b>Percent of authorities with an increase in recycling rate</b>
North East	12	6	50%
Yorkshire and Humber	22	11	50%
North West	43	22	51%
West Midlands	33	18	55%
South West	35	21	60%
Eastern	50	31	62%
East Midlands	45	29	64%
London	37	26	70%
South East	73	56	77%
England	350	220	63%

- Table 4 above shows the number of authorities in each region in which had an increase in their recycling rate of 0.1 of a percentage point or more in 2016/17 compared to 2015/16. Figure 8 below shows the shows the geographic

distribution of increases and decreases in recycling rates for each local authority by bands according to the size of the change.

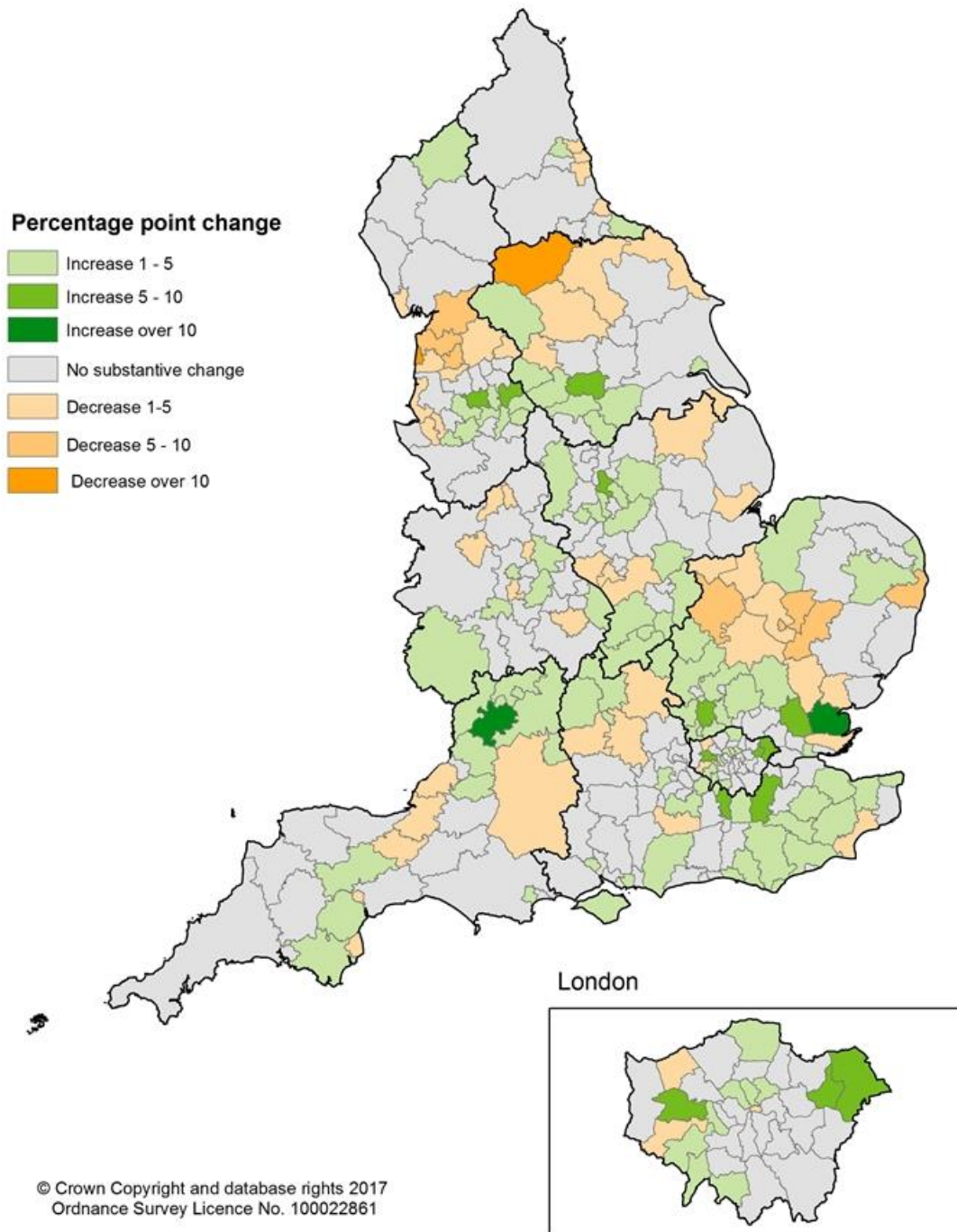
- Overall 220 or 63 per cent of the 350 local authorities in England had an increase in their recycling rate in 2016/17.
- In the North East and Yorkshire and Humber regions around half of all Local Authorities had an increase in their household recycling rates in 2016/17.
- In London 70% of authorities achieved some level of increase in their recycling rate.
- In South East region 77 per cent of all local authorities achieved some level of increase in their recycling rate.
- In 2016/17 the local authorities with the largest increase in 'household waste' recycling rates over the last 12 months were Stroud District Council (46 per cent), Maldon District Council (58 per cent) and Ashfield District Council (41 per cent) where rates increased by 9 to 14 percentage points.

**Figure 7: Map of Household Waste recycling rates for individual local Authorities in England 2016/17**





**Figure 8: Map of change in Household Waste recycling rates for individual local Authorities in England for 2016/17 compared to 2015/16**



Note: Grey areas in this map indicate a local authority where there was little change or the increase or decrease in the recycling rate was less than 1 percentage point.

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

### **Data uses**

Data on waste management are used to monitor policy effectiveness 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 shows a clear seasonal fluctuation. 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.

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.

### **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: [WasteStatistics@defra.gsi.gov.uk](mailto:WasteStatistics@defra.gsi.gov.uk).

### **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. The figures in this statistical release are taken from data reported by local authorities at a fixed time in October. Occasionally local authorities notify revisions after this point where it is generally not possible to take into account the changes without risking delaying publication. These typically do not have a significant impact on the headline figures, particularly at an England level.

For this release we are introducing a change in the methodology for the 'waste from households' recycling for 2016 to also include metal recovered and subsequently

recycled after incineration of waste. Estimates have also been produced for 2015 but it is not possible to backdate figures in a consistent manner prior to 2015 due to changes in the question structure and reporting which were introduced from April 2015. See 'Data notes and developments' section below for more information.

## **Methodology**

Data for this release came from a snapshot of the WasteDataFlow database taken in October 2017. 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. Waste diverted for recycling from the residual (or 'black bag waste') stream by further processing is included in the recycling tonnages.

## **Data notes and developments**

### **Metal recovered and recycled from Incinerator Bottom Ash**

There is a change this year in how metal recovered and recycled after incineration of waste is treated and reported for the 'waste from households' dataset only. This year the tonnage of IBA metal is now included within the recycling total for authorities, instead of being reported as 'recovery'. The amount varies between authorities depending upon the amount of the residual waste being incinerated and the metal content of the residual waste.

Inclusion of IBA metal has been facilitated through the new Q100 reporting structure for waste treatment which all local authorities have been using since April 2015. This has provided the opportunity for more complete recording of waste treatment, including outputs from incineration. The majority of local authorities are reporting more fully, but not in all cases. While reporting and associated quality assurance are developing and being refined, the figures need to be regarded as more indicative until it becomes fully established and embedded. As such the figures need to be taken as indicative estimates and why this has only been applied to England rather than individual local authorities.

This methodological change for IBA metal has been applied to the waste from household measures only. It has been applied to data from April 2015 - it is not possible to apply the change to data before then as the question structure was different so reporting of IBA metal was not as complete. At an overall England level this change in methodology raised the recycling rate for 2016 by around 0.7 percentage points (equivalent to 152 thousand tonnes). For 2015 the waste from households recycling rate would be increased by around 0.4 percentage points (equivalent to around 97 thousand tonnes). This is a slight underestimate for the impact for 2015 as data for January to March 2015 use the old question structure so

don't fully capture IBA metal for this quarter; estimated to be around 23 thousand tonnes.

Overall this change results in waste from household recycling rates being slightly higher where it would previously have been reported as 'recovery'.

There are no such methodological changes to the dataset for all local authority waste or household waste recycling so there are no changes to the household (NI 192) household recycling figures which are reported for England and also at a regional and individual local authority level where existing methodology and definitions have been retained.

### **Question structure for treatment and disposal questions (Q100)**

"Question 100" (Q100) has replaced the previous treatment questions. It was introduced on a voluntary basis from April 2014 with and was used by all local authorities in England from April 2015.

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 which could not 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. This is highly specific to the Local Authority and the facilities and the practices used for treatment and disposal.

Q100 also allows for more accurate and transparent reporting of recycling recovered from the residual stream which is back-allocated by the waste disposal authority to its constituent waste collection authorities, where there is arrangement to do this. This is done in a slightly different way with some subtle changes to the calculation and apportionment. It also provides material specific information to be recorded which results in lower figures against 'other materials' for recycling as this is now recorded against specific materials such as glass, plastic, paper etc.

There are some subtle differences in the way the recycling calculations work in relation to the apportionment of waste as household/non-household or waste from household/non-waste from household depending on whether the local authority has provided the specific split at treatment; in the absence of this, the default factor based on the split at collection is applied. In many cases local authorities have provided specific splits for household waste but not the waste from household splits. This can lead to some small differences in apportionment and trends when comparing data for household and waste from household level.

We are monitoring and assessing the impact of the introduction of Q100 on data recording and subsequent reporting so that this is clear and consistent.

### **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 against key standardised validation checks. Data are checked against appropriate threshold values specified 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, particularly related to appropriate recording of treatment and facility sites. However there is not a fully comprehensive or systematic 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](#).

With the introduction of Q100, this provides scope for local authorities to report more fully on treatment and end destination. This is particularly the case for incineration of waste and subsequent outputs and their final treatment and disposal. Gathering such information can be challenging, especially where waste goes through multiple different sorting and treatment processes at different facilities. In most cases local authorities are able to supply this information but in some cases full end destination treatment is not given or is stated as 'unknown'. This may have a small impact on the final figures. Defra will continue to monitor this and working with local authorities to enhance data quality assurance and consistency and completeness of reporting.

## **EU recycling target**

Commission Decision 2011/753/EU allows 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 re-use 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".

In December 2015 the European Commission published an ambitious package of proposals to promote the circular economy. This included a circular economy action plan and changes to six waste Directives.

## **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. As explained above under 'Methodology and 'Data Notes and Development' we are introducing a change to the waste from households recycling calculation to now include metal recovered after incineration. Further information on the difference has been published on the gov.uk [website](#) 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 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. Full data on household waste is available and can be downloaded on the gov.uk [website](#).

<b>Recycling (including composting and reuse)</b>	<b>Waste from Households recycling</b>	<b>Household waste recycling</b>
<i>from households and other premises similar to households, CA sites, Bring banks</i>	Y	Y
<i>from street bins</i>	N	Y
<i>from household-related parks and grounds</i>	Community skips only	Y
<i>from soil</i>	N	Y
<i>from rubble and plasterboard</i>	N	N
<i>from compost-like output from MBT plant</i>	N	Y
<i>from incineration bottom ash (IBA)</i>	N	N
<i>From metal recovered and recycled from incinerator bottom ash</i>	Y*	N
<i>other, from residual streams</i>	Y	Y
recycling rejects	N	N

<b>Residual waste</b>	<b>Waste from households residual</b>	<b>Household waste residual</b>
<i>from regular household collection</i>	Y	Y
<i>from civic amenity sites</i>	Y	Y
<i>from bulky waste</i>	Y	Y
<i>from other household waste</i>	Y	Y
<i>from street cleaning/sweeping</i>	N	Y
<i>from gully emptying</i>	N	Y
<i>from separately collected healthcare waste</i>	N	Y
<i>from asbestos waste</i>	N	Y

\*Revised to include IBA metal in 2017 and applied to data from April 2015.

The local authority recycling rate is based on the **NI 192 National Indicator** recycling calculation. The National Indicator calculation has been widely used by local authorities for many years for local strategic planning purposes, discussions with contractors and for benchmarking against other authorities and captures a broader scope of household waste than 'waste from households', e.g. it includes street sweepings and compost like output. This calculation will be made available as the NI 192 report on the [wastedataflow portal \(http://www.wastedataflow.org/\)](http://www.wastedataflow.org/) and also on [gov.uk website](http://www.gov.uk). This is reported on a financial year basis to meet the needs of local authorities.

## Useful links

<b>Scotland</b>	<a href="https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/">https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/</a>
<b>Wales</b>	<a href="http://new.wales.gov.uk/topics/statistics/theme/environment/wasterecycle/?lang=en">http://new.wales.gov.uk/topics/statistics/theme/environment/wasterecycle/?lang=en</a>
<b>Northern Ireland</b>	<a href="#"><u>Northern Ireland local authority collected municipal waste management statistics   Department of Agriculture, Environment and Rural Affairs</u></a>
<b>Eurostat</b>	<a href="http://ec.europa.eu/eurostat/web/waste">http://ec.europa.eu/eurostat/web/waste</a>
<b>Wastedataflow portal</b>	<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.

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