



11th December 2018

Statistics on waste managed by local authorities in England in 2017/18

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.

The next update to this notice and datasets will be in November/December 2019.

What data are confirmed in this release?

Measure	Time period
Waste from households This is the official recycling measure which is used as the basis for reporting at a harmonised UK level against the waste Framework Directive.	First publication of figures for the 2017 calendar year and for 2017/18 financial year.
Local authority collected waste This is all waste within the remit of local authorities. It includes household waste plus other non-household waste collected by local authorities.	First publication of figures for the 2017/18 financial year.
Household waste This is broader than “waste from households”, including waste from street bins, street sweepings, parks and grounds.	First publication of the data for the financial year 2017/18.

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](#).

Enquiries on this publication to: Alex Clothier, Foss House, 1 – 2 Peasholme Green, York, YO1 7PX, Email: WasteStatistics@Defra.gov.uk

For media enquiries contact Defra Press Office: 0330 041 6560.

An Official Statistics publication. These statistics have been produced to the high professional standards set out in the Code of Practice for Official Statistics, which sets out eight principles including meeting user needs, impartiality and objectivity, integrity, sound methods and assured quality, frankness and accessibility.

More information on the Official Statistics Code of Practice can be found [here](#).

Key points

England Waste from Households: 2017 and 2017/18 (Table 1 and Figure 1)

- The official England waste from households recycling rate for 2017 was 45.2 per cent, up 0.3 percentage points from 44.9 per cent in 2016. Metal recovered and recycled from waste which has been through incineration (IBA metal) now included in this measure, added around 0.8 percentage points to the recycling rate in 2017.
- Total 'waste from households' in England decreased by 1.5 per cent in 2017 to 22.4 million tonnes from 22.8 million tonnes in 2016. This is equivalent to 403 kg per person, down from 412 kg per person in 2016 a decrease of 2.2 per cent.
- Residual waste treated decreased by 2.1 per cent to 12.3 million tonnes in 2017 from 12.5 million tonnes in 2016.
- Total recycled waste in England decreased by 0.8 percent to 10.1 million tonnes in 2017 from 10.2 million tonnes in 2016.
- Dry recycling volumes fell by 2.1 per cent to 5.9 million tonnes in 2017 from 6.0 million tonnes in 2016. Other organic waste remained stable at 3.8 million tonnes in both years. Separate food waste collected for recycling increased by 8.7 per cent in 2017 to 386 thousand tonnes from 355 thousand tonnes in 2016.
- 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 rolling 12 month 'waste from households' recycling rate to end March 2018 was 44.8 per cent. This is a decrease of 0.3 percentage points compared with the previous 12 month period to March 2017. These figures include IBA metal.

England Local Authority and Household Waste: 2016/17 financial year (Table 2)

- Total local authority managed waste in 2017/18 was 25.6 million tonnes, a decrease of 2.6 per cent from 26.3 million tonnes in 2016/17.
- Just 12.5 per cent of all local authority waste was disposed to landfill in 2017/18, down by 0.9 million tonnes or 22 per cent to 3.2 million tonnes.
- Waste sent for incineration has continued to increase, up 0.7 million tonnes in 2017/18 to 10.8 million tonnes. In 2017/18, 42 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 all local authority waste sent for recycling in 2017/18 was 10.9 million tonnes, a 3.5 per cent decrease on the 11.3 million tonnes in 2016/17.
- There is a wide variation in household waste recycling rates amongst individual local authorities, ranging from 14 to 64 per cent per cent in 2017/18.

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 gov.uk [website](#).

Data revisions

There are some minor revisions to data from April 2015/16 onwards. These are a result of small refinement to complex calculations and factors applied in the 'waste from households' calculation to fully capture for variations in data reporting and also were there were some data reporting errors/oversights by local authorities. None of the changes affect the overall 'waste from household' or household recycling rates for England.

1 Waste from Households

1.1 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.

Some revisions have been made to historic data as a result of enhanced data quality assurance checks. Overall changes are minor and do not affect the national Waste from household recycling rate published here. For more on these changes refer to the [Data and Methodology section](#).

Table 1: Composition breakdown and recycling rate of 'waste from households' in England 2013 to 2017 (thousand tonnes)

Waste type	2013	2014	2015	2016	2017	% change 2017 over 2016
Total Recycling <i>of which:</i>	9,523	10,025	9,849	10,217	10,139	-0.8%
Dry recycling <i>of which:</i>	5,675	5,807	5,834	6,042	5,917	-2.1%
IBA Metal	:	:	97	143	181	26.4%
Separately collected food waste	273	290	307	355	386	8.7%
Other organics recycling	3,575	3,928	3,708	3,820	3,836	0.4%
Total Residual	12,038	12,327	12,363	12,535	12,266	-2.1%
Total waste from households	21,564	22,355	22,225	22,770	22,437	-1.5%
Waste from households recycling rate (including IBA metal)	:	:	44.3%	44.9%	45.2%	0.3 percentage points
Waste from households recycling rate (excluding IBA metal)	44.2%	44.8%	43.9%	44.2%	44.4%	0.2 percentage points

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

Numbers may not add to exact totals. This is due to rounding.

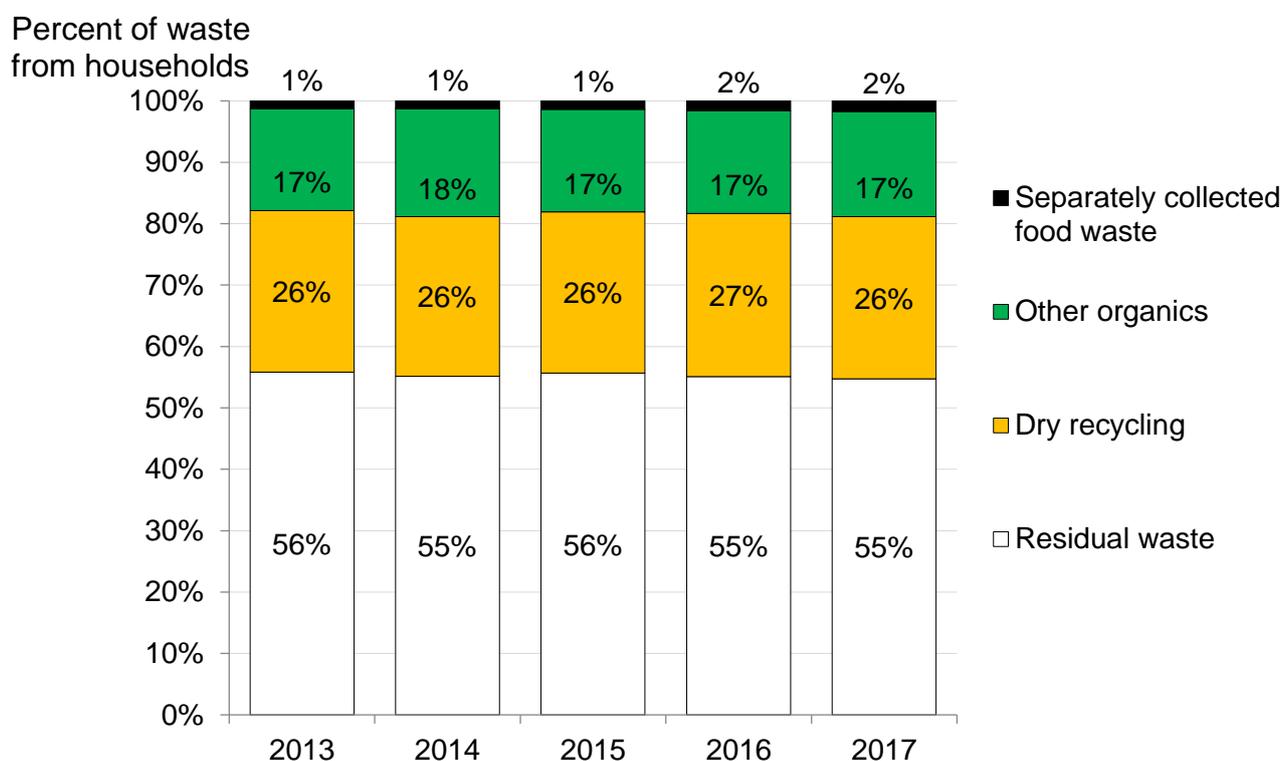
- The total weight of "waste from households" in England decreased by 1.5 per cent between 2016 and 2017 to 22.4 million tonnes.
- Recycled waste in England fell slightly to 10.1 million tonnes in 2017 from 10.2 million tonnes in 2016, a decrease of 0.8 per cent. Residual waste decreased by 2.1 per cent to 12.3 million tonnes in 2017 compared to 2016. However as a

proportion of total 'waste from households' it has remained at 55 percent of the total. See figure 1 below.

- The England 'waste from households' recycling rate was 45.2 per cent in 2017, an increase of 0.3 percentage points from the 2016 rate of 44.9 per cent. Metal recovered and recycled from waste which has been through incineration Incinerator bottom ash (IBA metal) contributed 143 and 181 thousand tonnes in 2016 and 2017 respectively.
- When IBA metal is excluded, the waste from households recycling rate is 44.4 per cent in 2017, an increase of 0.2 percentage points from 44.2 per cent in 2016.
- 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.

1.2 Waste from Households: Waste streams (Figures 1 to 4)

Figure 1: Waste composition: waste stream proportions as a percent of total 'waste from households' 2013-2017, 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.

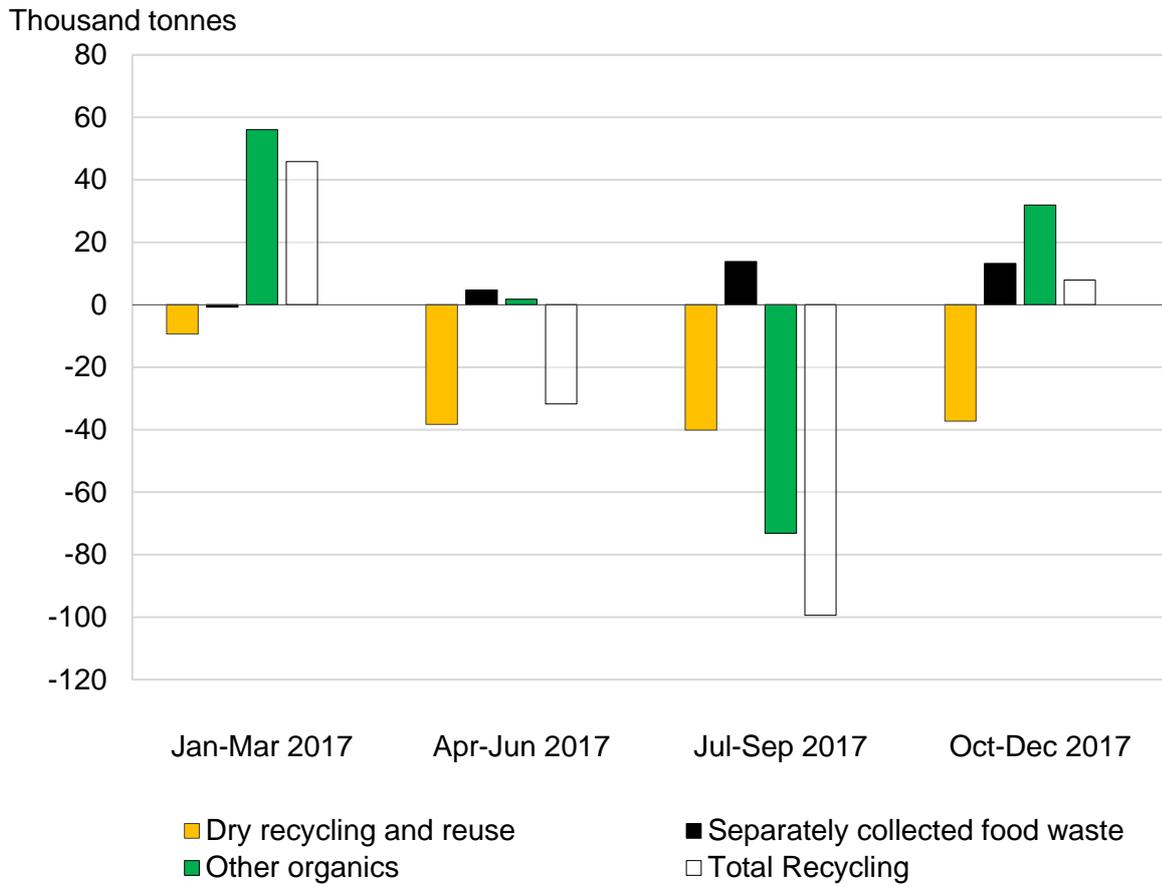
Dry recycling includes paper and card, glass, plastic, waste electrical and electronic equipment (WEEE), scrap metals including those reclaimed from incinerator bottom ash as well as other materials.

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

Numbers may not add to exactly 100. This is due to rounding.

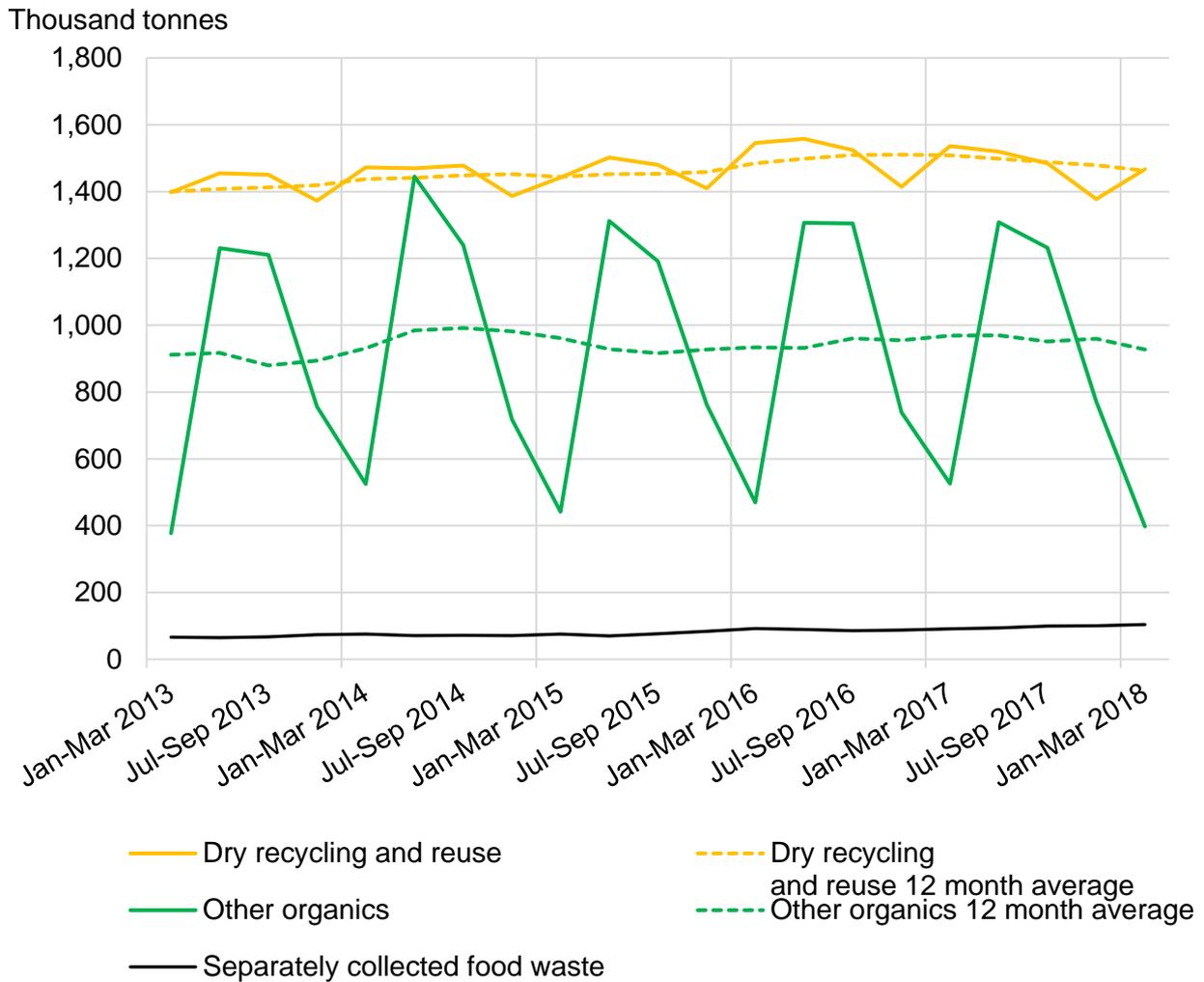
- Dry recycling volumes declined by 125 thousand tonnes or 2.1 per cent to 5.9 million tonnes in 2017.
- Dry recycling formed 58.4 per cent of the overall 2017 recycled waste total, this was down slightly from 59.1 per cent in 2016. Other organics and food waste formed 41.6 per cent of the total.
- The amount of food waste sent for composting (including anaerobic digestion) has increased by 8.7 per cent in 2017 to 386 thousand tonnes from 355 in 2016 but remains a very small proportion of total waste collected (2 per cent).
- Other organic wastes which include garden waste increased slightly by 0.4 per cent in 2017, and remained at 3.8 million tonnes.
- Other organic waste tonnages are directly linked to the season and weather or growing conditions and this is reflected in the quarterly figures. As shown in Figure 2, higher volumes of garden waste between January to March and October to December 2017 compared to the same period in 2016, offset a sharp decrease in July to September 2017, which was wetter, cooler and with less hours of sunshine than July to September 2016.
- Dry recycling was down each quarter. This has been driven mainly by the reduction in paper and card sent for recycling but there were also decrease for WEEE and other scrap metal. Further information on the composition of dry recyclate is given in Section 1.3 and Figure 5.

Figure 2: Quarterly year on year change in volume of recycled waste from households 2017 compared to 2016 England (thousand tonnes)



Quarterly trends over a longer time period are shown in Figures 3 and 4 and incorporate the data for the latest quarter, January to March 2018. Figure 4 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.

Figure 3: Waste from households – quarterly recycling volumes by waste type in England with 12 month moving averages (thousand tonnes)

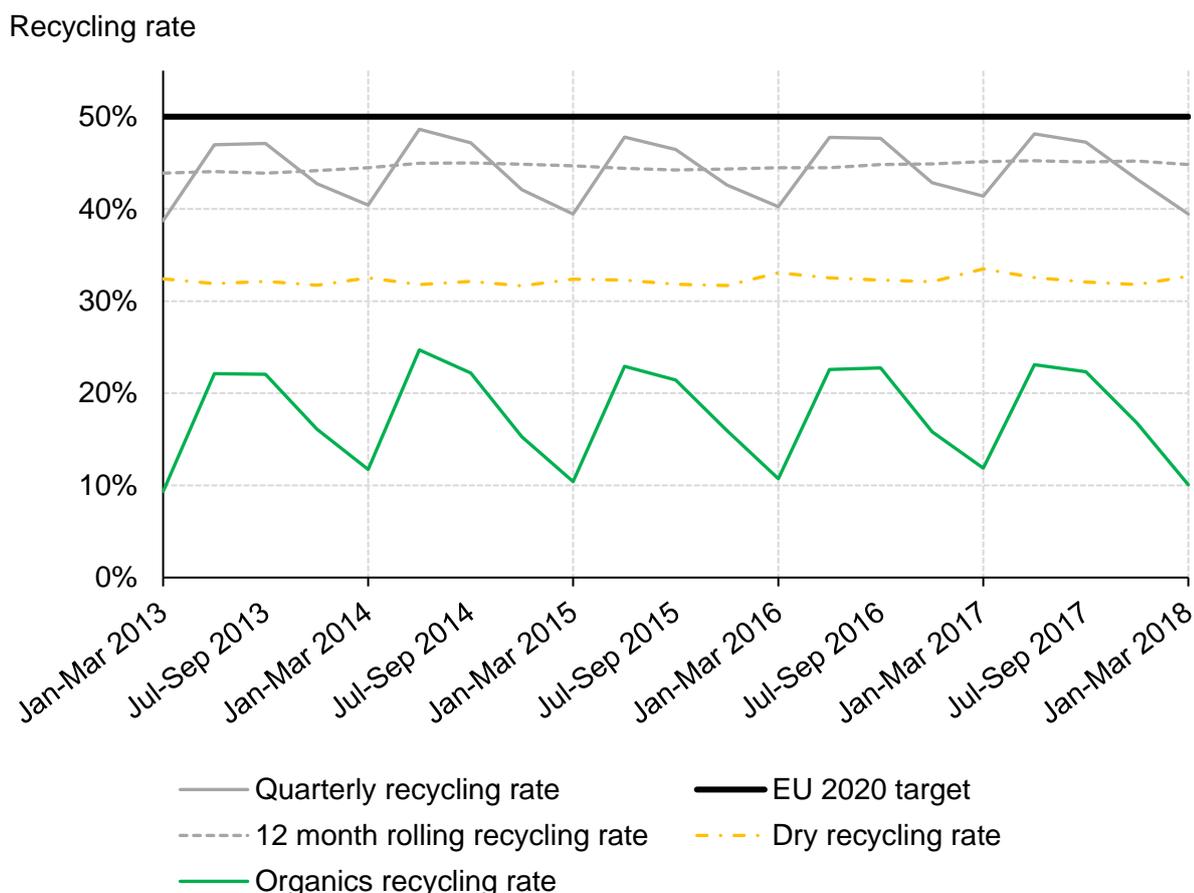


Notes

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.

Figure 4: The 'waste from households' quarterly recycling rate in England, Jan-Mar 2013 to Jan-Mar 2018



Notes:

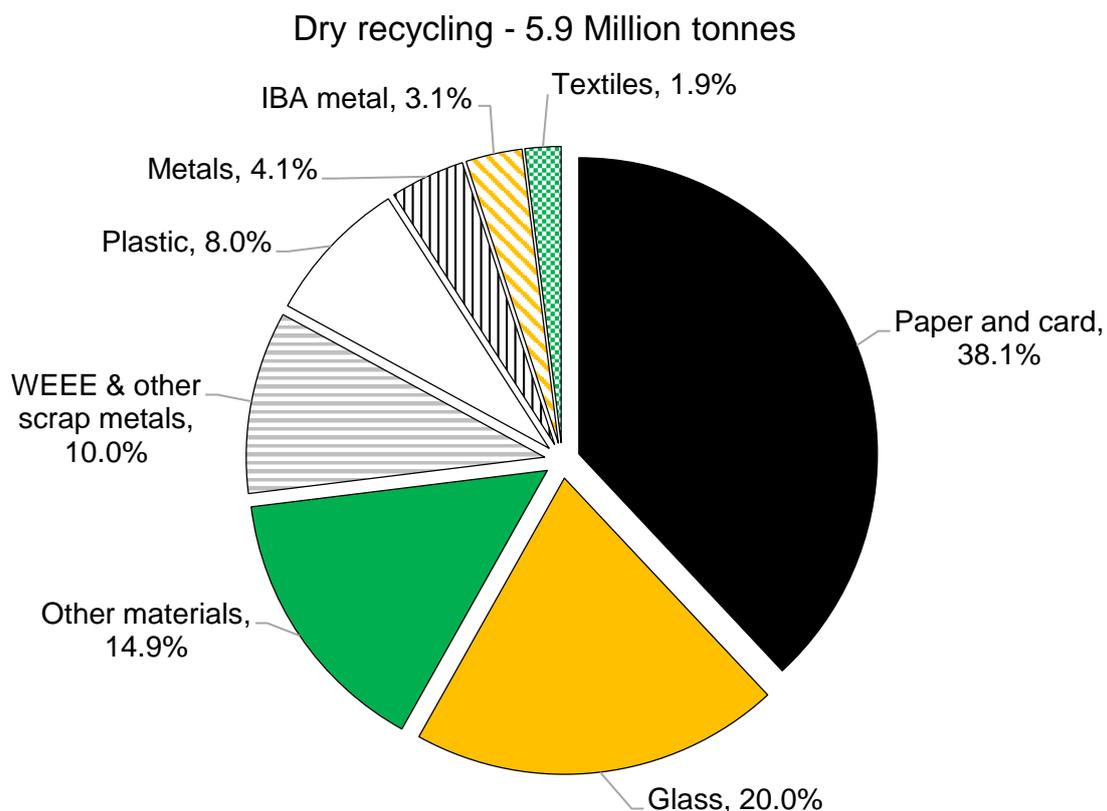
Recycling is 'recycling, composting and preparing for reuse'.

1.3 Waste from Households: Recycling composition (Figure 5)

- Dry recycling including metals from incinerator bottom ash decreased by 125 thousand tonnes or 2.1 per cent to 5.9 million tonnes in 2017; despite this fall it is 4 per cent higher than 5 years ago. Dry recycling constitutes 26.4 per cent of total waste from households.
- The relative proportions of the materials are shown in Figure 5. In 2017, there were decreases across all dry recycling material groups, with the exception of IBA metal which saw a modest 38 thousand tonne increase. The largest decreases were in the tonnage of 'paper and card', down 90 thousand tonnes or 4 per cent, 'WEEE & other scrap metal' down 36 thousand tonnes or 6 per cent and 'other materials' down 25 thousand tonnes or 3 per cent.
- Plastics decreased by 5 thousand tonnes or 1 per cent, textiles by 4 thousand tonnes or 4 per cent, while mixed glass decreased only very slightly by just over 500 tonnes.

- Generally the proportions of materials have not changed substantially over the last five years between 2013 and 2017. Notable exceptions are paper and card which has seen a gradual decrease over that time and in 2017 accounts for 4.1 percentage points less of the total than in 2013, whilst the proportions of plastics and WEEE have each increased by 1.1 and 1.8 percentage points respectively in the last couple of years.
- The proportion of IBA metal has increased from 1.7 per cent in 2015 (the first year data is available for) to 3.1 per cent in 2017.

Figure 5: England ‘waste from households’ dry recycling composition, 2017



2 Waste from households – Financial year figures

- The total volume of ‘waste from households’ in England decreased by 2.3 per cent between 2016/17 and 2017/18 to 22.2 million tonnes.
- Recycled waste in England decreased slightly to 10.0 million tonnes in 2017/18 from 10.3 million tonnes in 2016/17, a decrease of 3.0 per cent.
- In 2017/18 the recycling rate for ‘waste from households’ was 44.8 per cent, down 0.3 percentage points on 2016/17. This fall is largely due to a sharp decrease in the recycling rate for January to March 2018, which at 39.4 per cent, is 2.0 percentage points down on the same period the previous year.

- The volume of dry recycling in 2017/18 decreased by 3.1 per cent to 5.8 million tonnes. Organic recycling decreased by 2.9 per cent to 4.1 million tonnes due to a fall in 'other organics' mainly a result of a large 24 per cent decrease in the tonnage of 'other organics' recycled, seen across most authorities in January to March 2018. While plant growth is very limited at this time of year, January to March 2018 was wetter, colder and had fewer hours of sunshine than in January to March 2017 and this may have contributed to the large decreases.
- Residual waste decreased slightly to 12.2 million tonnes in 2017/18. However as a proportion of total 'waste from households' it increased slightly by 0.3 percentage points to 55.1 per cent of the total.

3 Management of all Local Authority collected waste – 2017/18 (Table 2 and Figure 6)

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 refuse derived fuel (RDF) and incineration and outputs from incineration under Q100.

- Total local authority managed waste in 2017/18 was 25.6 million tonnes, a reduction of 2.6 per cent on 26.3 million tonnes in 2016/17.
- Around 12.5 per cent of all local authority managed waste was sent to landfill in 2017/18. This was equivalent to a total 3.2 million tonnes of waste, and 924 thousand tonnes lower than in 2016/17, a fall of 22.3 per cent. There was 2.5 million tonnes of waste sent direct to landfill in 2017/18, this was 77.1 per cent of the landfill total compared to 78.2 per cent some 3.2 million tonnes in 2016/17.
- Around 42 per cent of all local authority waste was incinerated¹. This amounted to 10.8 million tonnes of local authority managed waste, an increase of 665 thousand tonnes on 2016/17 and off-setting reductions in waste going to landfill. There was 7.6 million tonnes of waste sent direct to incineration in 2017/18, at 70 per cent of the total, this proportion was unchanged from 2016/17.
- 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.

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

- The amount of all local authority waste sent for recycling in 2017/18 was 10.9 million tonnes, 392 thousand tonnes down on 2016/17. Overall 42.4 per cent of all local authority waste was sent for recycling in 2017/18 compared to 42.8 per cent in 2016/17.

Table 2: Management of all Local Authority collected waste financial year figures in England 2013/14 to 2017/18 (thousand tonnes)

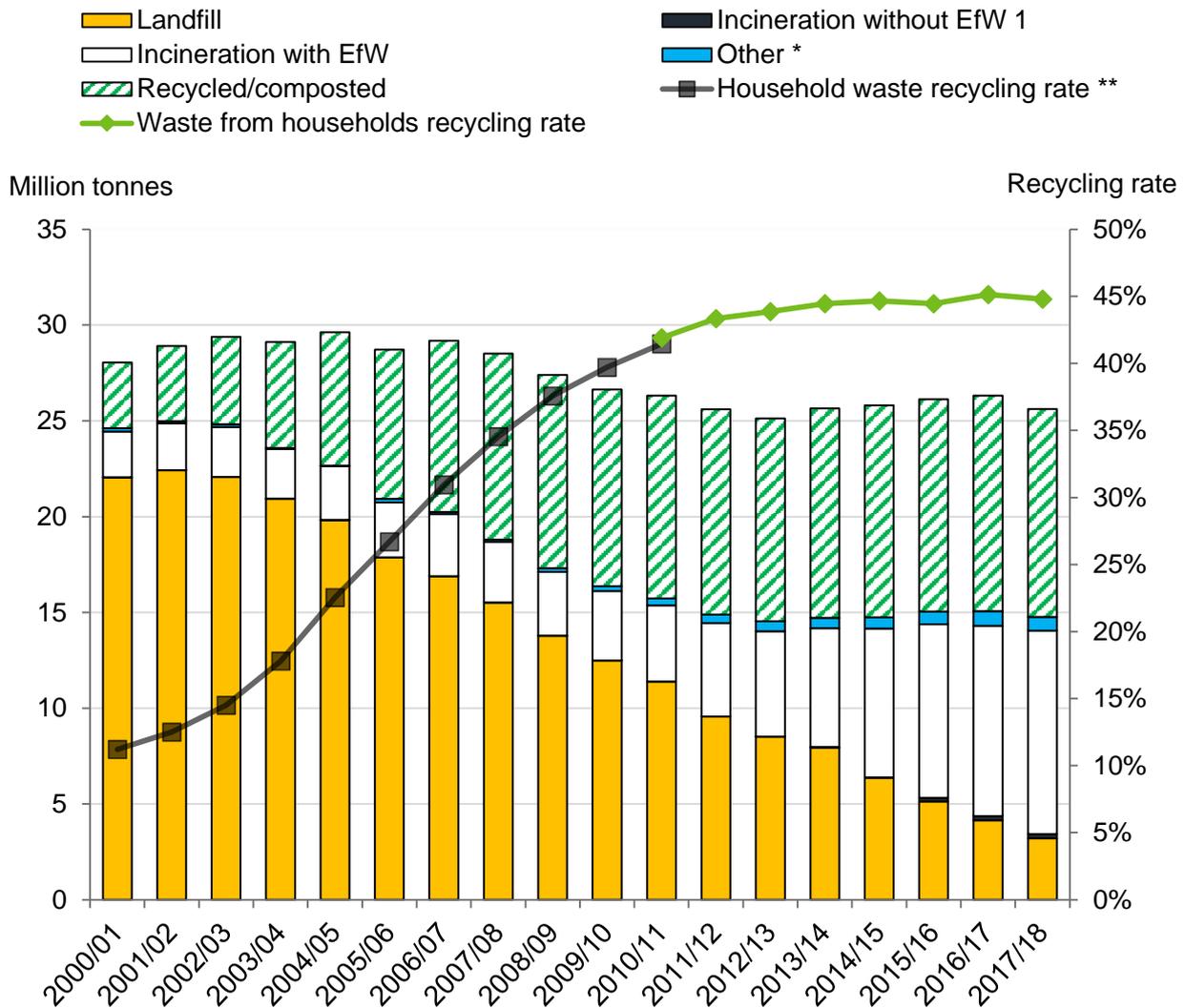
Waste disposal method	2013/14	2014/15	2015/16	2016/17	2017/18	2017/18 % change over 2016/17
Landfill	7,933	6,361	5,133	4,136	3,213	-22.3%
Recycled / composted of which:-						
Household waste	10,931	11,067	11,065	11,252	10,860	-3.5%
Non household waste	9,980	10,117	10,075	10,329	9,980	-3.4%
	950	950	990	923	880	-4.7%
Total Incineration of which:-	6,245	7,798	9,259	10,169	10,834	6.5%
Incineration with EfW	6,204	7,773	9,067	9,946	10,620	6.8%
Incineration without EfW ¹	41	25	192	224	214	-4.1%
Other	537	589	668	761	719	-5.5%
Total local authority waste managed	25,645	25,816	26,124	26,319	25,626	-2.6%
Recycled / composted waste as a percent of total	42.6%	42.9%	42.4%	42.8%	42.4%	-0.4 percentage points

Notes

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

Numbers may not add to exact totals. This is due to rounding.

Figure 6: Management of all Local Authority collected waste and recycling rates in England, 2000/01- 2017/18



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.

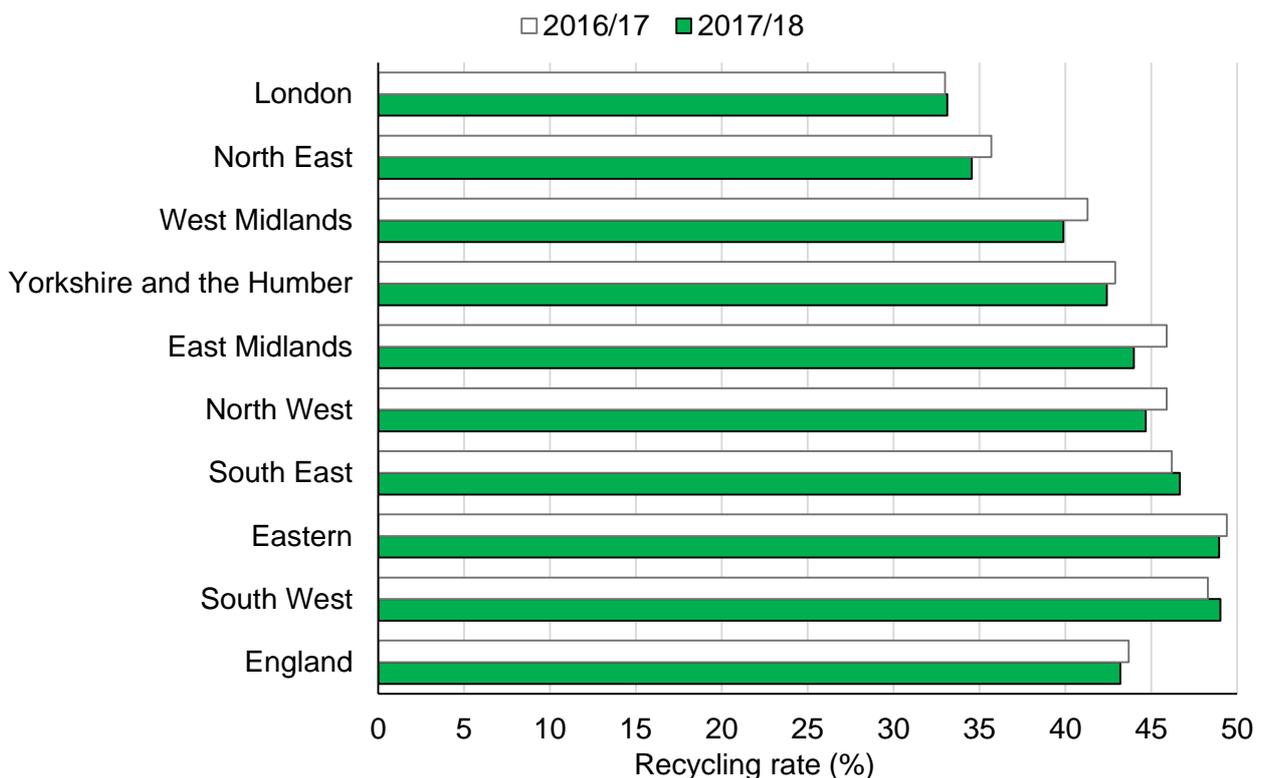
** **The Household waste recycling rate** is based on a broader measure of waste and is not directly comparable to the 'waste from households' recycling rate. For further information on definitions refer to the glossary.

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

4 Household Waste Recycling Rates for England and the regions (Figure 7)

- 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.
- The regional differences are illustrated in Figure 7.

Figure 7: Household waste recycling rates 2016/17 and 2017/18 for England and regions



- The London area has the lowest household waste recycling rate, at 33.1 percent in 2017/18 while the Eastern region and South West regions are the highest at 49.0 per cent each

- The South West region had the largest increase in household waste recycling rate up by 0.7 percentage points to 49.0 per cent, while the South East and London had increases in their recycling rate of 0.5 and 0.1 percentage points respectively. There were decreases in the recycling rates of all of the other regions.

5 Household Waste Recycling Rates for Individual Local Authorities (Table 3 and Table 4)

- At an individual Local Authority level, 'household waste' recycling rates ranged from 14 per cent to 64 per cent. The average figure for England is 43.2 per cent in 2017/18. This is 0.5 percentage points lower than in 2016/17.
- 'Household waste' recycling is often similar in adjacent authorities, however there is a wide range between the highest and lowest recycling rates in all regions of England and even within a region. Figure 8 shows the geographic distribution of recycling rates in 2017/18.
- Table 3 below shows the highest and lowest recycling rates in each region together with the proportion of total recycling that is made up of organic waste for each authority shown. Generally an authority with a small proportion of their total recycling accounted for by organic wastes will have a lower recycling rate, although as can be seen below, this is not always the case.

Table 3: Local authorities with the highest and lowest household recycling rates in each region in 2017/18

Region	Position	Authority	Recycling Rate	Percent of Total Recycling that is Organic
London	lowest	Newham LB	14%	17%
London	highest	Bexley LB	52%	42%
North East	lowest	Stockton-on-Tees Borough Council	25%	34%
North East	highest	Darlington Borough Council	41%	21%
West Midlands	lowest	Birmingham City Council	21%	38%
West Midlands	highest	Stratford-on-Avon District Council	60%	58%
South West	lowest	Council of the Isles of Scilly	21%	21%
South West	highest	Stroud District Council	61%	41%
Yorkshire and the Humber	lowest	Kirklees MBC	27%	38%
Yorkshire and the Humber	highest	East Riding of Yorkshire Council	64%	50%
East Midlands	lowest	Bassetlaw District Council	25%	25%
East Midlands	highest	South Northamptonshire District Council	60%	59%
North West	lowest	Barrow-in-Furness Borough Council	20%	38%
North West	highest	Trafford MBC	59%	58%
South East	lowest	Gosport Borough Council	23%	9%
South East	highest	South Oxfordshire District Council	63%	53%
Eastern	lowest	Tendring District Council	27%	33%
Eastern	highest	Rochford District Council	63%	61%

- There are 3 regions in 2017/8 where the range between the highest and lowest recycling rates (see Table 3) is 40 percentage points. These are the South West, the South East and West Midlands. Of these Birmingham City Council and the Council of the Isles of Scilly had the lowest recycling rates. Birmingham's recycling was down by 3.7 percentage points in 2017/18 due to a period of industrial action by waste collection services in the summer. Waste volumes on the Isles of Scilly are very small and this very low recycling rate has little impact on the overall rate for the region.
- There are similar but slightly narrower ranges across most other regions except for the North East. Stockton on Tees Borough Council has the lowest rate at 25 per cent and Darlington Borough Council the highest at 41 per cent, a difference of just 16 percentage points. However only 21 per cent of Darlington's recycling is organic materials compared to some 34 per cent for Stockton on Tees.
- In all 10 authorities had recycling rates in excess of 60 per cent. In total there were 82 authorities with a recycling rate of 50 per cent or higher.
- East Riding of Yorkshire Council had the highest 'household waste' recycling rate in England in 2017/18 at 64 per cent, with 50 per cent of their recycling being organic waste. South Oxfordshire District Council and Rochford District Council both achieved 63 per cent 'household waste' recycling rates. The proportion of organic/green waste within the household recycling total in 2017/18 for these authorities was 53 per cent for South Oxfordshire, 50 per cent for East Riding and 61 per cent for Rochford.
- These same three local authorities have been the top 3 performing local authorities in terms of household waste recycling in the 3 years 2015/16 to 2017/18. Over the last 5 years, South Oxfordshire District Council and Rochford District Council have both had an average recycling rate of 65 per cent, while East Riding of Yorkshire, the top performing council this year has averaged 62 per cent over the 5 years.
- Tonbridge and Malling Borough Council had the highest proportion of organic/green waste at 73 per cent of their total household recycled waste with an overall household recycling waste in 2017/18 of 42 per cent.
- Newham London Borough Council has the lowest 'household waste' recycling rate in England in 2017/18 at 14 per cent, only 17 per cent of Newham's recycling is organic materials. The next lowest recycling rates for London are Westminster City Council at 19 per cent, and Lewisham Borough Council at 22 per cent. However only 3 per cent of Westminster's recycling is made up of organic materials while for Lewisham the proportion is 33 per cent.

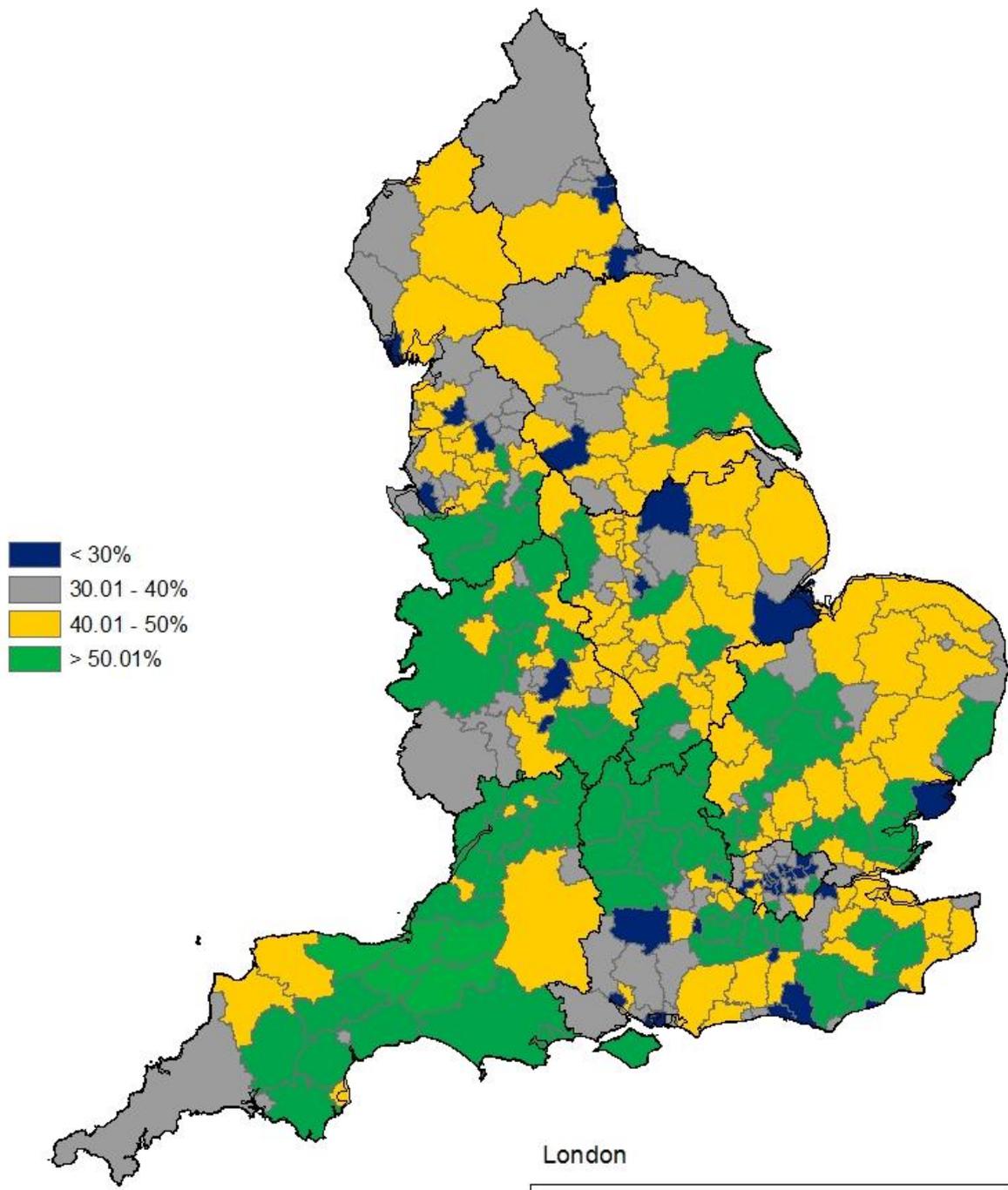
Table 4: Number of authorities in each region showing an increase in their recycling rate of 0.1 percentage point or more in 2017/18 compared to 2016/17

Region	Total number of authorities in region	Number of authorities with an increase of 0.1 percentage point or more in recycling rate in 2017/18	Percent of authorities in region with an increase
West Midlands	33	3	9%
North East	12	4	33%
East Midlands	45	8	18%
Yorkshire and the Humber	22	8	36%
North West	43	13	30%
Eastern	50	18	36%
London	37	18	49%
South West	30	22	73%
South East	73	44	60%
Total	345	138	40%

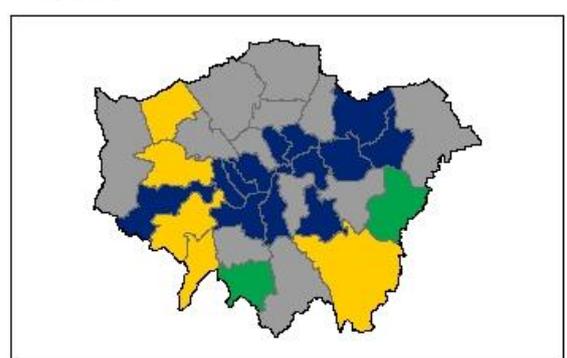
Note: There is a decrease of 5 in the number of local authorities in 2017/18. This is due to the formation on the “Somerset Waste Partnership Unitary Authority” which manages and reports the waste formerly reported by Mendip DC, Sedgemoor DC, Somerset CC, South Somerset DC, Taunton Dean BC, and West Somerset DC.

- 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 2017/18 compared to 2016/17. 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 138 or 40 per cent of the 345 local authorities in England an increase of 0.1 percentage points or more in their household recycling rate in 2017/18.
- In the South West region 73 per cent of local authorities increased their recycling rate. In the South East region 60 per cent of all local authorities increased their household recycling rate.
- In London 49 per cent of authorities achieved some level of increase in their household recycling rate.
- In the North West 30 per cent of authorities had an increase in their recycling rate and in North East region 33 per cent of authorities had an increase. In the Yorkshire and Humber region 36 per cent of all local authorities had an increase in their household recycling rate in 2017/18.
- In 2017/18 the local authorities with the largest increase in ‘household waste’ recycling rates over the last 12 months were Stroud District Council (61 per cent), Sutton LB (50 per cent) and Colchester Borough Council (55 per cent) where rates increased by between 9 to 16 percentage points.

Figure 8: Map of Household Waste recycling rates for individual local Authorities in England 2017/18

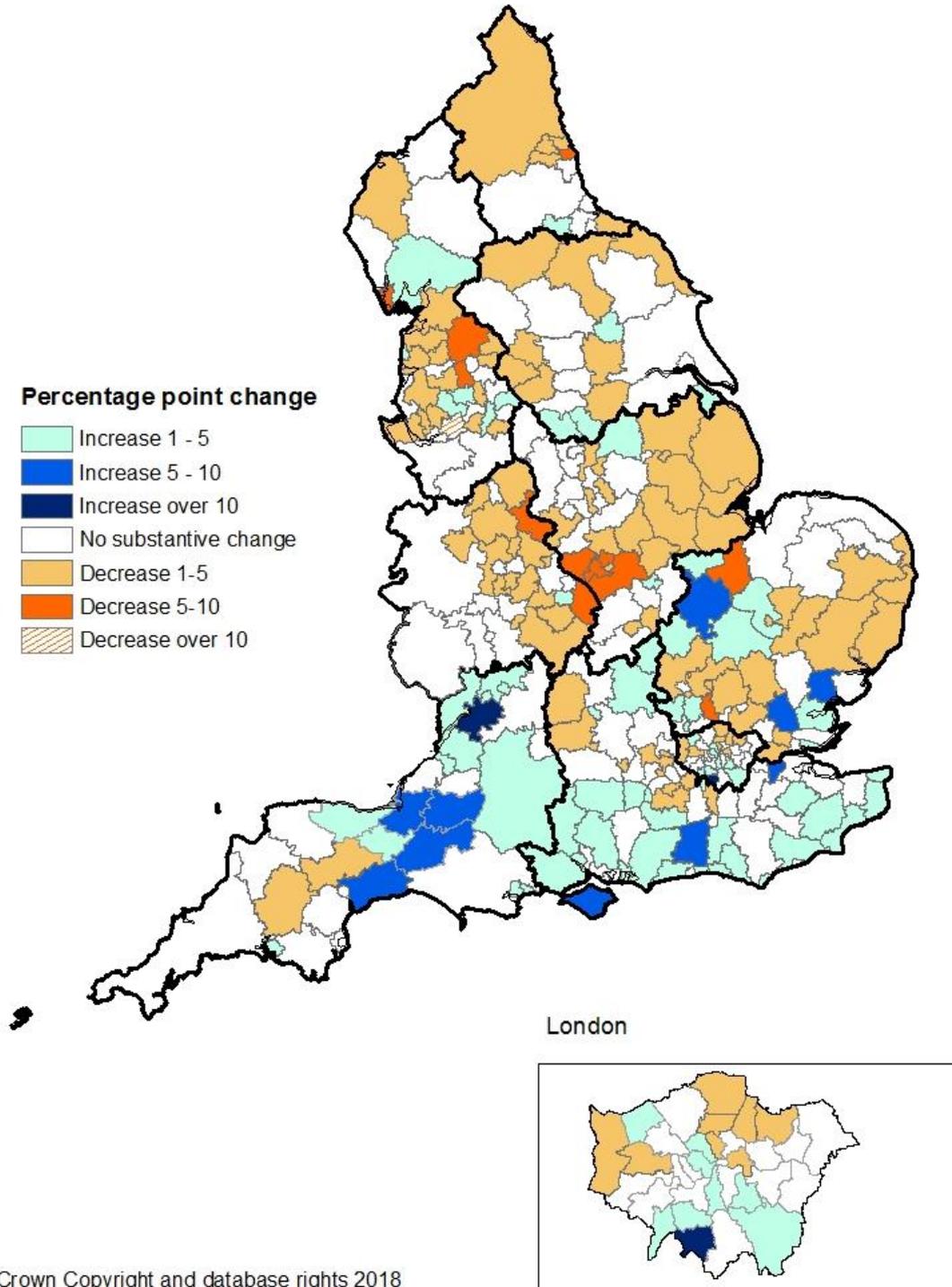


London



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Figure 9: Map of change in Household Waste recycling rates for individual local Authorities in England for 2017/18 compared to 2016/17



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Note: White 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.

6 About these statistics

Including information on data uses, feedback, revisions policy, methodology, glossary of terms and measures, and references.

6.1 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.

6.2 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

6.3 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.

6.4 Methodology

Data for this release came from a snapshot of the WasteDataFlow database taken in October 2018. 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.

For the 2017 release a change in the methodology was made for the 'waste from households' recycling for 2016 to also include metal recovered and subsequently recycled after incineration of waste. Estimates were produced for 2015 but it was 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.

6.5 Introduction of change to include metal recovered and recycled from Incinerator bottom ash

In December 2017, a change in how metal recovered and recycled after incineration of waste (IBA metal) is treated and reported for the 'waste from households' dataset only was introduced. The tonnage of IBA metal is now included within the recycling instead of being reported as 'recovery'. The amount varies 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.

6.6 December 2018 – Revision to ‘Waste from household’ calculations and data. (Table 5)

Following detailed analysis of Q100 data it became apparent that due to the way the data had been reported, there were a few significant tonnages of recyclate being omitted from calculations. These were mainly where:-

- i) Comingled recyclates going through a materials recovery facility were later described as being for reuse rather than recycling. Although both reuse and recycling count towards the recycling rate this data was outside the scope of the calculations due to rules within an algorithm and so tonnages did not count towards the Waste from household recycling total.
- ii) Through the online reporting, ‘Other scrap metal’ following incineration is selected from the material list rather than the strictly correct ‘IBA metal’ by some local authorities. The change to calculations in 2017 see above to include metals from incinerator bottom ash (IBA metal) had been precisely set to exclude any material not having that precise description. It was found that this was excluding some tonnages of metals described as ‘other scrap metal’ rather than IBA metals from recycling totals.

Both these scenarios have now been accommodated within waste from household recycling calculations. Obviously it is not possible or desirable to fix all reporting issues through revision to calculations and local authorities are encouraged through updated guidance and newsletters to report materials in specific ways.

In addition to the work above to refine calculations a number of data reporting errors were found. Some of these were where recyclate material types were misreported at final destination e.g. mixed plastics instead of mixed paper & card or where Incinerator bottom ash final destination was reported incorrectly. These mistakes are likely to be a result of the complexity of the Q100 reporting structure.

Overall the revisions resulting from calculation improvements and data revisions at a National level are small. Table 5 below shows the figures published last year in Table 1 of this notice against the current figures for 2015 and 2016. The overall ‘Waste from household’ recycling rate was not affected by the revisions.

**Table 5: Impact of Calculation and data revisions to Waste from Households
Headline figures**

Stats notice published:-	December 2017		December 2018		Change	
	2015	2016	2015	2016	2015	2016
Waste type						
Total Recycling of which:	9,843	10,219	9,849	10,217	6	-2
Dry recycling of which:						
IBA Metal	5,830	6,046	5,834	6,042	5	-4
Separately collected food waste	97	152	97	143	0	-9
Other organics recycling	307	353	307	355	0	2
	3,706	3,820	3,708	3,820	1	0
Total Residual	12,365	12,529	12,363	12,535	-2	6
Total waste from households	22,225	22,770	22,225	22,770	0	0
Waste from households recycling rate (including IBA metal)	44.3%	44.9%	44.3%	44.9%	0.0%	0.0%
Waste from households recycling rate (excluding IBA metal)	43.9%	44.2%	43.9%	44.2%	0.0%	0.0%

6.7 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.

6.8 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 and Defra with input from the Environment Agency.

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 are carried out by Defra who may also refer some to the Environment Agency on any specific data queries raised, particularly related to appropriate recording of treatment and facility sites. The Defra checks include trend and outlier analysis on key measures at an aggregate and individual local authority level are undertaken. 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.

6.9 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".

More ambitious targets and other changes are being introduced through the Circular Economy Package.

7. 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.

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

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

Notes

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

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.

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 and also on gov.uk [website](#). This is reported on a financial year basis to meet the needs of local authorities.

Useful links

[Scottish Government Statistics](#)

[Welsh Government Statistics](#)

[Northern Ireland Department of Agriculture, Environment and Rural Affairs Statistics](#)

[Eurostat](#)

[WasteDataFlow Portal](#)

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