Introduction
Estimates of local authority collected waste generation and management for England are published on a quarterly and annual basis by Defra. Since 2004/5 data collection has been via an online web-based system called WasteDataFlow (WDF). National estimates were released on a quarterly basis for the first time in February 2008 as it took some time for the new system to become established. Since Quarter 2 of 2007/8 the quarterly data have been published as National Statistics, and the response rate for the survey has been 100% since 2008/9.

WasteDataFlow is a UK system, and is used by the other UK countries to produce similar statistics. The questionnaires differ slightly, but the core information collected is comparable. Details of the core dataset are available here.

Timeliness
The deadline for data submission for each quarter is 3 months after the end of the quarter. After the validation process is complete (as described below) Defra receive the data around 6 months after the end of each quarter. There is additional work carried out by the Environment Agency on the annual data set, which can further delay annual data availability.

Defra publishes the local authority breakdown and the regions, including the financial year data around November/December of each year.

Data quality
Generally, the data that is reported into WasteDataFlow comes from information supplied to authorities by their waste management contractor and which is used by them in their own internal management information systems and for contract performance

monitoring, etc. It is not possible to know for sure how accurate the reported data is, but authorities have an incentive to maintain accurate data for their internal purposes.

In WasteDataFlow, each local authority has at least one data entry user and an authoriser who has to check and approve the data before it can be submitted to the database. After submission the data pass through 3 validation stages – stage 1 conducted by Defra’s contractors (more details here), stage 2 the Environment Agency, and finally by Defra at the national level.

Stage 1 validation covers the internal consistency of the return and comparison with previous returns. There is detailed guidance for local authorities on the WasteDataFlow website covering data entry. There are also a number of tools provided to authorities to help them ensure their returns are correct. There are validation spreadsheets available on WDF for users to run to check that the data they have entered balances. Once the local authority has submitted their quarterly dataset Defra’s contractors validate the data using a validation spreadsheet. There is a comments box accompanying each question where local authorities can enter extra information to help with the validation process. The data is checked against the equivalent quarter from the previous year and any unexpected changes between the two quarters are queried with the local authority and amended if necessary.

At stage 2, once the data have been validated by the contractor, further validation checks may be undertaken by the Environment Agencies on any specific data queries raised which focus on ‘other/exempt’ destinations, the comparison of Waste Disposal Authority/Waste Collection Authority data returns, and the review of the destinations of materials sent for recycling.

At the national level, Defra performs checks on the consistency of the national results, comparisons with previous estimates and general sense checking of the results. At this stage it is rare to uncover issues with local data which have not been picked up in the first two stages.

As far as possible checks have been made to validate the data reported by local authorities for waste being sent as ‘incineration without energy recovery’ in Table 2 of the datasets associated with this statistical release.

**Revisions policy**

The general WDF policy is to minimise data revisions and encourage local authorities to accurately report quarterly data by deadlines. Where small revisions are requested, local authorities are advised to make balancing adjustments in subsequent quarters. For more substantive changes, local authorities request their data to be ‘rolled back’ to them after they have submitted. Where this change request is agreed by the Environment Agency and Defra, a quarterly return will be revised. These requests are relatively few during the year, but more requests are received towards the end of the year.

No changes are permitted after validation of Quarter 4 data has been completed. Authorities are also required to provide evidence regarding changes in procedures they have put in place to minimise the need for future data revisions.
Result of consultation for annual statistics
In February 2016, Defra group launched a consultation on a suite of proposed changes including the move to produce the result of the local authority waste annually instead of quarterly provisional results as previously produced. Following the consultation a decision was taken to produce the statistical releases annually. For the results of the consultation please see the following link: [Official Statistics: proposed changes to Defra statistics - Consultations - GOV.UK](https://www.gov.uk).

Waste from households measure
The ‘waste from households’ measure was introduced in May 2014 and based on the EC definition of “household waste” as “waste generated by households” (Commission Decision 2011/753/EU, Article 1(1)), and “similar waste” as “waste in nature and composition comparable to household waste, excluding production of waste and waste from agriculture and forestry” (Commission Decision 2011/753/EU, Article 1(2)).

The difference is attached in the table:

<table>
<thead>
<tr>
<th>Recycling (including composting and reuse)</th>
<th>Waste from Households recycling</th>
<th>Household waste recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>from households and other premises similar to households, CA sites, Bring banks</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>from street bins</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from household-related parks and grounds</td>
<td></td>
<td>Community skips only</td>
</tr>
<tr>
<td>from soil</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from rubble and plasterboard</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>from compost-like output from MBT plant</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from incineration bottom ash (IBA) &amp; IBA metals</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>other, from residual streams</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>recycling rejects</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residual waste</th>
<th>Residual waste from households</th>
<th>Household waste residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>from regular household collection</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>from civic amenity sites</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>from bulky waste</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>from other household waste</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>from street cleaning/sweeping</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from gully emptying</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from separately collected healthcare waste</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>from asbestos waste</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>
Question 100 (Q100)

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

Q100 provides a more flexible structure that has enabled local authorities to report a more complete and transparent representation of the more complex waste treatment practices that occur 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 may have a small impact on the apportionment and the household and waste from household recycling rates and is estimated to reduce the waste from households recycling rate by approximately 0.2 percentage points.

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.

2015/16 final results

The final cut of quarters 1, 2, 3 and 4 2015/16 were downloaded from the WasteDataFlow database in November 2016.

There was a 100% submission of returns. From 2015/16 Chiltern District Council started submitting a joint return with Wycombe District Council, hence the final data is based on 351 authorities. This includes Dorset Waste Partnership, representing six Councils:

- Weymouth and Portland Borough Council
- West Dorset District Council
- Purbeck District Council
- North Dorset District Council
East Dorset District Council
Christchurch Borough Council.
Babergh District Council submits a joint return with Mid Suffolk District Council
Chiltern District Council submits a joint return with Wycombe District Council.

Seasonality and year-end effects
Waste production and management varies over the course of a year. This means that the trends observed in quarterly data (or a rolling year) will not necessarily marry up with that previously seen by users of the annual data. This means care needs to be taken in interpreting the long-term trends of an annual dataset with that of a quarterly release of data. The revisions that can happen to quarterly data and the ‘balancing’ of tonnages across quarters (particularly at year-end) could also mean that different trends are observed in the ‘rolling year to date’ and the ‘final financial year’. The focus continues to be on the financial year trends.

Dealing with unvalidated returns
There are two main choices for dealing with returns that have not completed validation. Either to use the validated return made for the same period of the previous year, or to use the unvalidated returns directly.

Access to data
WasteDataFlow data becomes public domain once the statistics release has been published. Users can access the results in a number of ways:

- From the Defra website, which contains the statistics releases and summary analyses
- WDF contains a reporting feature which allows custom reports to be produced. Access is available to anyone. An email address is required to register (no other personal information is collected). Register here.

Feedback
We are always interested in feedback from users on any aspect of this release or waste statistics in general. In particular we would welcome hearing about what users do with the results and data which is available in WasteDataFlow. Comments may be sent to:

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