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 in November 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.

1 http://www.defra.gov.uk/statistics/environment/waste/
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.

**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.

Provisional results for each quarter will be published within 4 months of the end of data submission date, i.e. within 5 weeks of Defra receiving the validated data. Each quarter will not be revised in each publication to minimise revisions and confusion for the user. Instead, a final set of results will be published in the annual dataset in November and this will include revised quarterly figures.
**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>Community skips only</td>
<td>✓</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>

**Q100**

A new question titled ‘Q100’ which replaces a number of existing questions on waste treatments and disposal methods was introduced and set up in the WasteDataFlow online system for Local Authorities in England in April 2014. Q100 is already being used by all authorities in Wales and Scotland.
Approximately 60 authorities in England started using Q100 in April 2014 with another 40 moving across later such that in total 100 authorities used Q100 at various quarters in the reporting year, they are listed in the dataset. This question structure is being used by all Local Authorities in England from April 2015.

Q100 has a much more flexible structure to allow authorities to more accurately record the waste management processes which have become more complex so could not be adequately captured under the previous question structure. It also provides the opportunity for Local Authorities to report in more detail the further treatment and disposal of certain types of waste such as RDF, which would have been a final output previously. This is highly specific to the Local Authority and the facilities and practices used for treatment and disposal.

As Q100 incorporates a number of questions, there have been some necessary modifications to the process for extracting data from the database and the workings used to produce the various data breakdowns but the principles of the current methodology are unchanged. In particular there are no changes to the categories of waste that are included as recycling and no changes to the ‘waste from households’ recycling rate calculation.

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. It is possible that some refinement may be required to the format of datasets in the future, reflecting the additional information which is available through Q100 and to retain consistency and comparability of datasets. The introduction of Q100 should provide a more complete and transparent representation of what happens in practice.

At an aggregate level, there is no significant impact on the data reported.

2014/15 final results
The final cut of quarters 1, 2, 3 and 4 2014/15 were downloaded from the WasteDataFlow database in November 2015.

There was a 100% submission of returns therefore the final data is based on all 352 authorities including the 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.

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 that quarter’s 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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