2015-16 National Statistics on Local Authority Collected Waste Management in England Methodological Summary

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Introduction

Estimates of local authority collected waste generation and management for England and its regions are published on a quarterly and annual basis by Defra¹. 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 final national data, regional and local authority breakdown in the first week of November 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

¹ https://www.gov.uk/government/collections/waste-and-recycling-statistics

database. After submission the data pass through 3 validation stages – stage 1 conducted by Defra's contractors (more details <u>here</u>), stage 2 by 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 <u>guidance</u> 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, the Environment Agency looks at consistency between authorities, checking that the return for Waste Disposal Authorities reflects the waste reported for the Waste Collection Authorities they cover. As part of their role the Environment Agency also carry out periodic visits to authorities and treatment facilities to monitor data collection and quality assurance processes within authorities.

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:

Recycling (including composting and reuse)	Waste from Households recycling	Household waste recycling
from households and other premises similar to households, CA sites, Bring banks	✓	✓
from street bins	×	✓
from household-related parks and grounds	Community skips only	✓
from soil	×	✓
from rubble and plasterboard	×	×
from compost-like output from MBT plant	×	✓
from incineration bottom ash (IBA) & IBA metals	×	×
other, from residual streams	✓	✓
recycling rejects	×	×
Residual waste	Residual waste from households	Household waste residual
from regular household collection	✓	✓
from civic amenity sites	✓	✓
from bulky waste	✓	✓
from other household waste	✓	✓
from street cleaning/sweeping	×	✓
from gully emptying	×	✓
from separately collected healthcare waste	×	\checkmark
from asbestos waste	×	✓

Q100

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

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

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

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

April to June 2015 provisional results

The provisional cut of April to June 2015 was downloaded from the WasteDataFlow database taken at the end of January 2016. This is a snapshot taken of the database. Changes may be made to the data after this snapshot has been taken and these will be reflected in the final publication in November 2016.

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 annual 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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