

Local Authority Municipal Waste Management

What are these statistics?

These statistics provide summary information on the municipal waste management of local authorities in Wales. The release presents information on local authority municipal waste collected and sent for disposal from household and non-household sources. For the purposes of this release, 'Local Authority Municipal waste' is as defined in the Waste (Wales) Measure 2010. In its current waste strategy "Towards Zero Waste", the Welsh Government set statutory targets of recycling 58 per cent of waste by 2015-16, 64 per cent by 2019-20 and 70 per cent of waste by 2024-25.

Summary information is published on a quarterly basis, detailed analyses are available in an annual Statistical First Release, and all data are published on [StatsWales](https://stats.wales.gov.uk/).

Policy and operational context

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

One of the national indicators relates to waste, namely 'Amount of waste generated that is not recycled, per person'. This indicator covers the total amount (kg) of residual waste (i.e. waste that is not reused, recycled or composted) in Wales by all sectors, on a per person basis. Information included within this release is used to calculate the 'Local Authority residual household waste' component of the national indicator. Information on waste from the industrial and commercial sector and the construction and demolition sector are not reported in this statistical release.

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Users and uses

Waste statistics are important for policy development and planning the delivery of public services, such as waste management. Some of the uses include:

- monitoring of progress towards waste targets

- statutory requirements for reporting to the European Union
- policy development
- advice to Ministers
- informing debate in the National Assembly for Wales and beyond
- geographic profiling, comparisons and benchmarking.

There are a variety of users of waste statistics including national and local government, researchers, students and individual citizens.

More specifically, data on waste management are collected in order to monitor progress towards national and local targets; in particular, against the requirements of the EU Landfill Directive. The aim of this Directive is to reduce the amount of methane emitted from landfill sites by setting targets for Member States to reduce the amount of biodegradable municipal waste sent to landfill. Also in its current waste strategy, “Towards Zero Waste”, the Welsh Government set statutory targets of recycling 58 per cent of waste by 2016-17 and 70 per cent of waste by 2024-25.

Strengths and limitations of the data

Strengths

- The information is processed and published frequently and in an ordered manner to enable users to see the statistics when they are current and of greatest interest.
- Outputs have a clear focus on Wales and have been developed to meet the internal and external user need in Wales.
- Detailed statistics are provided via our [StatsWales](#) website at local authority level.

Limitations

- Because of the devolved administrations and differing policy, it is difficult to compare across the UK (see Related Statistics section of release for most appropriate comparison).
- The accuracy of the data reported to WasteDataFlow is entirely dependant on the measurement, data management and reporting by local authorities and waste operators. While Natural Resources Wales carry out validation in accordance with the Regulations, the validation of WasteDataFlow and the cross checks with other available waste data is limited to the accuracy of those reporting.

Data processing cycle

Data source and coverage

From 1996-97 to 2003-04 data on municipal waste was collected through the Municipal Waste Management Survey. This survey was sent to all local authorities in Wales and England. From 1998-99 Wales achieved a 100 per cent response rate.

From 2004-05 this information was collected using an online reporting system for waste data called '[WasteDataFlow](#)'. In Wales this was formerly managed by the Environment Agency, now Natural Resources Wales, and the Waste Strategy Branch of the Welsh Government extract the information for the report from WasteDataFlow.

Under regulation 6 of the Landfill Allowances Scheme (Wales) Regulations 2004 (LAS Regulations) and regulation 5 of The Recycling, Preparation for Re-use and Composting Targets (Monitoring and Penalties)

(Wales) Regulations 2011, local authorities in Wales are required to report quarterly information on collected municipal waste; the amount of municipal waste sent to landfills and the amount of municipal waste sent to other facilities. This information is submitted by local authorities via WasteDataFlow. The monitoring authority (Natural Resources Wales) is then responsible for validation of this information.

WasteDataFlow guidance and factsheets are readily available to local authorities online. This guidance includes a system manual, list of all Wales specific questions and list of Wales specific guidance. Generally the questions are straightforward. However, further explanation for the more complex questions can be found in the general guidance. Furthermore, question-by-question guidance is being developed. Natural Resources Wales also supports Welsh local authorities on any local authority specific WasteDataFlow issues.

WasteDataFlow is subject to continual improvement and development that can impact on the way that data is entered and introduce new data reports based on new data requirements. The nature of introducing these changes can produce data interpretation issues, such as with historic data already in the system. Some changes can be complex in nature producing impacts in reporting that may not be fully realised initially. All changes to the system are carefully monitored for any discrepancies between data entry and reporting. In the event that discrepancies arise, the WasteDataFlow system is adjusted and any previously published data is revised or caveated accordingly.

Data collection

The figures shown in this Statistical Release are based on information collected via quarterly statistical returns completed by local authorities in Wales. Local authorities are notified of the data collection exercise timetable in advance. This allows adequate time for local authorities to collate their information, and to raise any issues they may have. There is guidance in the spreadsheet, which assists users when completing the forms.

Validation and verification

Under regulation 6 of the Landfill Allowances Scheme (Wales) Regulations 2004 (LAS Regulations) and regulation 5 of The Recycling, Preparation for Re-use and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011, local authorities in Wales are required to report quarterly information on local authority collected municipal waste; the amount of local authority municipal waste sent to landfills and the amount of local authority municipal waste sent to other facilities. This information is submitted by local authorities via WasteDataFlow. The monitoring authority (Natural Resources Wales) is then responsible for validation of this information. Reporting requirements are detailed in the Natural Resources Wales reporting protocol published on WasteDataFlow 'Guidance on reporting and notices for Landfill Allowances Scheme and Recycling, Preparation for Re-use and Composting Targets', Feb 2016. It includes deadlines for when local authorities need to report prompt (Level 30) and accurate (Level 35) data and the deadlines for making changes to the data.

Natural Resources Wales (NRW) has three months to validate the data. Validation involves a procedure of checking that all relevant WasteDataFlow questions have been completed by the local authorities and any discrepancies in calculations between entered inputs and outputs are identified. Any anomalies are then communicated to the individual local authorities and remedial action is taken to resolve them. NRW also request local authorities to provide evidence in relation to their waste data, which is an ongoing process during each validation quarter and throughout the scheme year.

Publication

Once the data has been finalised, the release is compiled and key points and commentary are drafted. The

release is independently checked and a final sense check is carried out by the relevant statistician prior to publication on the website.

Standards

The statistics that are prepared adhere to recognised professional standards. They are produced in accordance with the Code of Practice for Statistics independently under the responsibility of the Welsh Government Chief Statistician.

Official Statistics are produced to high professional standards set out in the Code of Practice for Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political reference.

More detailed quality information relating specifically to the Municipal Waste in Wales, which is not included in the quality report, is given below.

Administrative Data Quality Assurance

This release has been scored against the UK Statistics Authority Administrative Data Quality Assurance matrix. The matrix is the UK Statistics Authority regulatory standard for the quality assurance of administrative data. The standard recognises the increasing role that administrative data are playing in the production of official statistics and clarifies what producers of official statistics should do to assure themselves of the quality of these data. The toolkit that supports it provides helpful guidance to statistical producers about the practices they can adopt to assure the quality of the data they receive, and sets out the standards for assessing statistics against the Code of Practice for Official Statistics.

The matrix assesses the release against the following criteria:

- operational context and administrative data collection
- communication with data supply partners
- quality assurance principles, standards and checks applied by data suppliers
- producer's quality assurance investigations and documentation.

The release has provisionally been scored as 'A2: Enhanced assurance' against each of the first three of the above categories and as 'A3: Comprehensive assurance' against the final category

Quality

Local Authority Municipal Waste Management statistics adhere to the Welsh Government's [Statistical Quality Management Strategy](#), and this is in line with the European Statistical System's six dimensions of quality, as listed in Principle 4 of the Code of Practice for Statistics.

Details of the six dimensions, and how we adhere to them, are provided below:

Relevance

The degree to which the statistical product meets user needs for both coverage and content.

The data in this Statistical Release form the basis of evidence for measuring recycling rates in Wales. They are used by the Welsh Government, local authorities, and other environmental organisations to monitor the progress made by Welsh local authorities in achieving the recycling targets. Other interests and uses of this data are outlined above.

We actively review all our outputs and welcome feedback.

Accuracy

There is an apparent inconsistency between the total waste figures given for 2008-09 to 2013-14 (old definition) in local authority municipal (household and non-household) waste generated in Wales and the management of local authority municipal waste. This is because there is a slight mismatch between the amount collected and the amount sent for treatment. This can be a matter of timing if, for example, authorities stockpile waste for later treatment. There may also be some inconsistencies in the measurement, since the waste is weighed when collected and again when it is sent for treatment. In addition, there may be loss in weight through various treatment processes. Natural Resources Wales validate all local authority returns and require that the difference between the amount collected and the amount sent for treatment must not differ by more than 10 per cent in any quarter, unless a valid explanation can be given. Natural Resources Wales have also placed more emphasis on authorities providing more evidence in relation to their waste statistics from 2012-13 onwards.

Where local authorities collect non-household waste (i.e. from a business, school etc.) in the same collection round as household waste, it may not be possible for them to provide an accurate split between the household and non-household waste collected. This may present an element of bias in the data.

In the tables where figures have been rounded to the nearest final digit, the constituent items may not add up exactly to the total.

Changes in data between 2016-17 and 2017-18 are partly explained by improvement in the accuracy of reporting in 2017-18. Specifically, improvement to the accuracy of wood end destination reporting following the reporting of more local authority originating wood sent for incineration (estimated by Natural Resources Wales to contribute a 0.8 percentage point decrease in the overall rate in 2017-18). In more recent years, less local authority originating wood has been collectively reported as sent for incineration. Subsequently, verifying the veracity of end destination wood recycling information provided to Welsh local authorities from the waste industry is an ongoing priority for Natural Resources Wales.

In 2017-18 there was also a drop in the amount of Incinerator Bottom Ash (including metals) reported as recycled (estimated by Natural Resources Wales to contribute a 0.7 percentage point decrease in the overall rate). This is attributed to some local authorities sending more residual waste to landfill as opposed to incineration as a contingency, following closure of a facility. Other Welsh local authorities generally sent less residual waste for incineration.

Additional validation undertaken by NRW for 2024 to 2025 has identified that the proportion of wood reported as recycled or reused is likely to have been over-stated in recent years. This affects the headline recycling rates.

Wood usually contributes around 4 percentage points to the overall national recycling rate. Based on the information available, we estimate that the national recycling rate for Wales in 2024 to 2025 is likely to be a minimum of 1 percentage point lower than currently reported. The impact at local authority level varies: some authorities are unaffected, while for others the rate could be between 1 and 5 percentage points lower.

It is not possible to revise the figures for 2024 to 2025 or for previous years as the available information does not allow the extent of the issue to be calculated with sufficient accuracy. Future reporting arrangements for wood recycling are being reviewed, and further information will be provided in forthcoming releases.

The coronavirus (COVID-19) pandemic impacted on the collection and management of Welsh local authority municipal waste during 2020 to 2021 and 2021 to 2022.

Revisions

If local authorities wish to change previously submitted data outside of the validation period, they must submit a roll back request to the Waste Strategy Branch of the Welsh Government and Natural Resources Wales, detailing the reasons for the changes. This prevents any alterations being made that the monitoring authority is unaware of and acts as an incentive for local authorities to enter accurate data.

In order to validate data for previous years, figures are prepared by reproducing calculations from raw data, where possible. This can uncover mistakes in the initial calculations. Where data has been revised it will be clearly marked with an (r).

Previously, residual household waste per dwelling was calculated using the most recent dwelling stock estimates which related to 31 March in the previous year. That is, residual household waste per dwelling for 2017-18 was calculated using dwelling stock estimates as at 31 March 2017. However, following improvement to the dwelling stock estimate methodology in September 2019, dwelling stock estimates are now published within 6 months of the reference date. Therefore residual waste per dwelling figures for 2018-19 were calculated using dwelling stock estimates as at 31 March 2019. Previous residual waste per dwelling figures have been updated using revised dwelling stock estimates which relate to the same year.

We follow the [Welsh Government's statistical revisions policy](#).

Timeliness and punctuality

Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.

All outputs adhere to the Code of Practice for Statistics by pre-announcing the date of publication through the [Upcoming pages on the Statistics for Wales website](#). Furthermore, should the need arise to postpone an output this would follow the [Welsh Governments Revisions, Errors and Postponements arrangements](#).

We publish releases as soon as practical after the relevant time period.

Accessibility and clarity

Additional data are available to download from our [StatsWales](#) interactive website. Data are available for annual municipal waste, quarterly municipal waste, Construction & Demolition waste, and Industrial & Commercial waste.

Comparability

From 1 April 2012, there were changes in definitions relating to local authority municipal waste generated and the percentage prepared for reuse, recycling or composting in Wales. As a result, from 2012-13 onwards, figures published within this annual statistical bulletin will be directly comparable with those in the quarterly statistical release and the National Strategic Indicator.

The change in definition means data for 2012-13 onwards will differ from the figures previously shown in the annual statistical bulletin. The majority of information shown for earlier years in the bulletin relates to waste that was collected for disposal/treatment; however, under the new definition the figures relate to waste that was actually sent for disposal/treatment.

Information on abandoned vehicles has previously been reported in the annual statistical bulletin. However, as abandoned vehicles are not recorded by all local authorities in WasteDataFlow (as they are not classed as local authority municipal waste) and due to possible concerns about the quality of the data, it has been decided to omit the information from this and future editions of the bulletin.

Further information is available on request.

Workplace Recycling

- These are selected tonnages reported by the 22 Welsh local authorities as collected at the kerbside from non-household sources by material type. These material types may have been estimated by local authorities where it is not feasible to weigh separately at the point of collection or first waste receiving site.
- Some local authorities may also collect non-household waste in the same collection round as household waste, which may further require estimating tonnages and presenting an element of bias in the data.
- Material figures are based on tonnages reported as collected for recycling and residual figures are those reported as collected for disposal. This is prior to treatment of the waste tonnages by the waste industry so not necessarily the end fate for all of these tonnages.
- Local authorities have a statutory duty to collect commercial waste from premises if requested by the occupier of premises in its area (Section 45 1 (b) of the Environmental Protection Act 1990). The above data is subsequently impacted by the variable number of commercial customers. Numbers of customers may have increased since the introduction of the Workplace Recycling Regulations in Wales (introduced on 6th April 2024).
- 'Co-mingled' category has been excluded since it is potentially open to mis-interpretation. Local authorities may have reported under this 'co-mingled' material category where it is not feasible for them to estimate any separately collected waste by individual material type. In addition, two waste groupings can still be 'co-collected' together under the workplace recycling regs code of practice i.e. plastic & metal. More analysis would be needed at individual LA level to ascertain the value in summarising 'co-mingled' differences at an all Wales level.

Coherence

The degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.

[My Recycling Wales website](#) enables anyone to find out where Welsh collected local authority waste is reported as being sent for reprocessing – both within Wales and the wider UK, and overseas. The site includes information for key materials; glass, metal, food and garden waste, paper, plastics, textiles and waste electronic and electrical equipment.

Related Statistics for Other UK Countries

More information on municipal waste management statistics in England is available on the Department for [Environment, Food and Rural Affairs website](#).

More information on municipal waste management statistics in Scotland is available on the [Scottish Environment Protection Agency website](#).

More information on municipal waste management statistics in Northern Ireland is available on the [Northern Ireland Environment Agency website](#).

Evaluation

We always welcome feedback on any of our statistics. Please contact us via email: stats.environment@gov.wales

Produced by Knowledge and Analytical Services, Welsh Government

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