



Local Authority Municipal Waste Management, 2021-22 (Revised)

10 January 2023
SDR 225/2022 (R)

About this Release

This release, originally published in November 2022, has been revised following an issue with the calculation of management waste. Charts 2 and 8 have been revised.

This annual Statistical release presents final results for 2021-22 from the Waste Data Flow system monitored by Natural Resources Wales. The release presents information on local authority municipal waste collected and sent for disposal from household and non-household sources.

We welcome feedback on the format of this Statistical First Release (please see [Further Details](#)).

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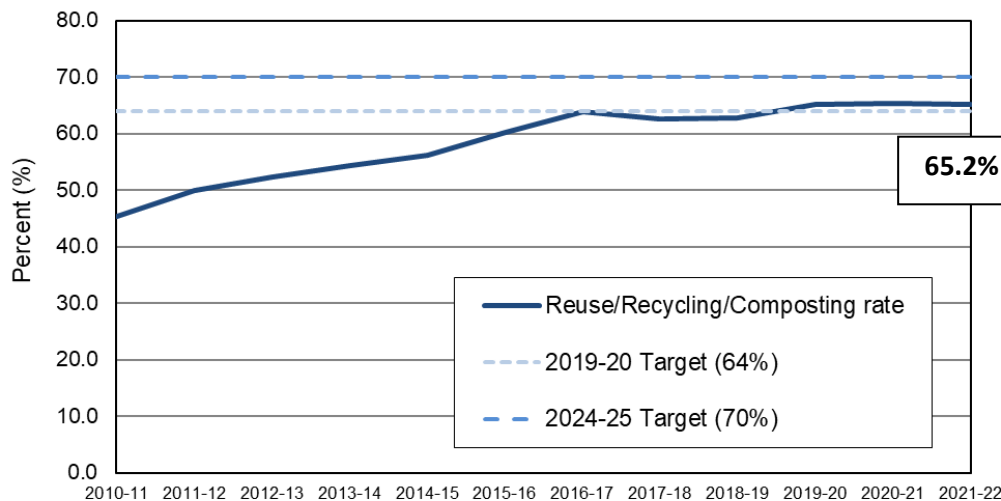
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This annual statistical release reports on the municipal waste management of local authorities in Wales in 2021-22. In its current waste strategy '[Beyond Recycling](#)' (2021), the Welsh Government set statutory targets of recycling a minimum of 64% of waste by 2019-20, and 70% of waste by 2024-25. '[Beyond Recycling](#)' (2021), also includes other targets including one to reduce the total amount of household waste collected by 2050.

The coronavirus (COVID-19) pandemic had an impact on the collection and management of Welsh local authority municipal waste during 2020-21 and 2021-22. These should be considered when comparing against previous years and between local authorities. Further information on the impacts of COVID-19 are given on page 2.

Please see [StatsWales](#) for additional data at a national and local authority level. A [Quality Report](#) is published alongside this document.

Chart 1: Percentage of local authority municipal waste reused/recycled/composted by year



Highlights

The recycling rate (i.e. the percentage of local authority municipal waste that was reused, recycled or composted) has increased considerably during the last two decades (from around 5% in the late 1990s).

- The recycling rate (percentage of local authority municipal waste that was reused/recycled/composted) decreased slightly from 65.4% in 2020-21 to 65.2% in 2021-22. This is slightly higher than the rate in 2019-20 (65.1%). This Wales

average exceeds the 2019-20 target of 64% that has to be met by all local authorities each year until 2024-25 set in the ['Beyond Recycling'](#) (2021) Strategy.

- 16 of the 22 local authorities exceeded the 64% target
- 10 of the 22 local authorities reported an increase in their recycling rate compared to 2020-21.
- 1.5 million tonnes of local authority municipal waste were generated in 2021-22, an increase of 1.4% on 2020-21.
- Residual household waste per person decreased by 2.2%, falling from 182kg in 2020-21 to 178kg in 2021-22.

Impact of the Coronavirus (COVID-19) Pandemic

The unprecedented times experienced during the COVID-19 global pandemic had an impact on the collection and management of Welsh local authority municipal waste. Over the past year, the difference in how local authorities have been able to recover from the pandemic and the rate at which they have been able to do this varies. This should be taken into account when comparing the data with pre-pandemic periods, and between local authorities.

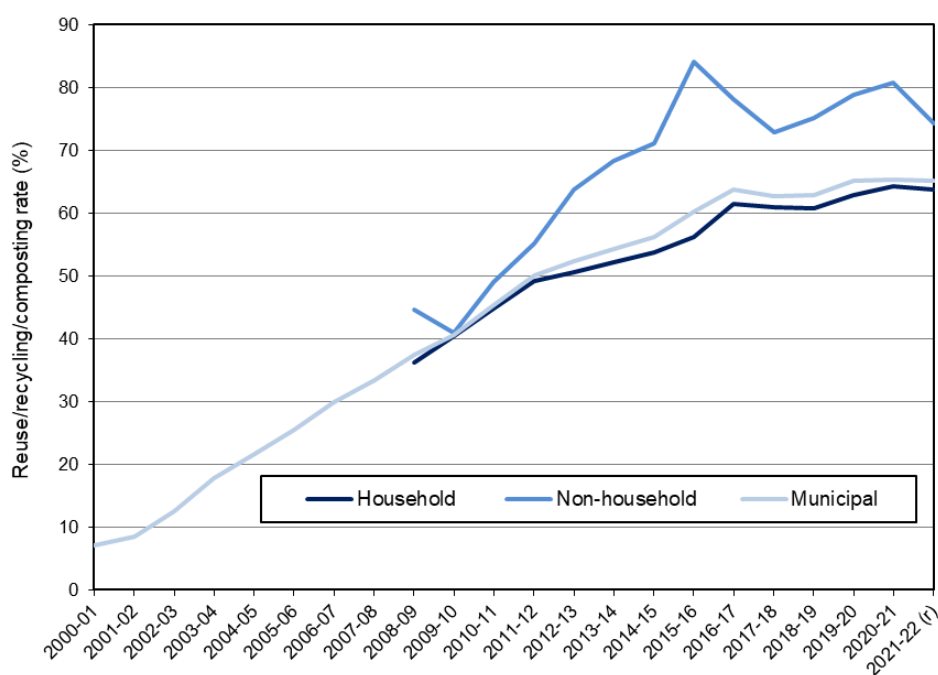
Information on COVID-19 restriction is available in this [timeline](#).

Local authority municipal (household and non-household) that was reused/recycled/composted

The headline recycling rate is defined as: the amount of local authority municipal waste (excluding abandoned vehicles) that was sent for reuse, recycling or composting divided by the total amount of waste in tonnes collected by or on behalf of local authorities. It includes both household and non-household waste. More information about recycling rates can be found on the [My Recycling Wales website](#).

The overall recycling rate for Wales decreased slightly from 65.4% in 2020-21 to 65.2% in 2021-22.

Chart 2: Percentage of local authority municipal waste prepared for reuse, recycling or composting in Wales, 2000-01 to 2021-22 (Revised)



↓ The household recycling rate decreased slightly from 64.3% in 2020-21 to 63.8% (r) in 2021-22.

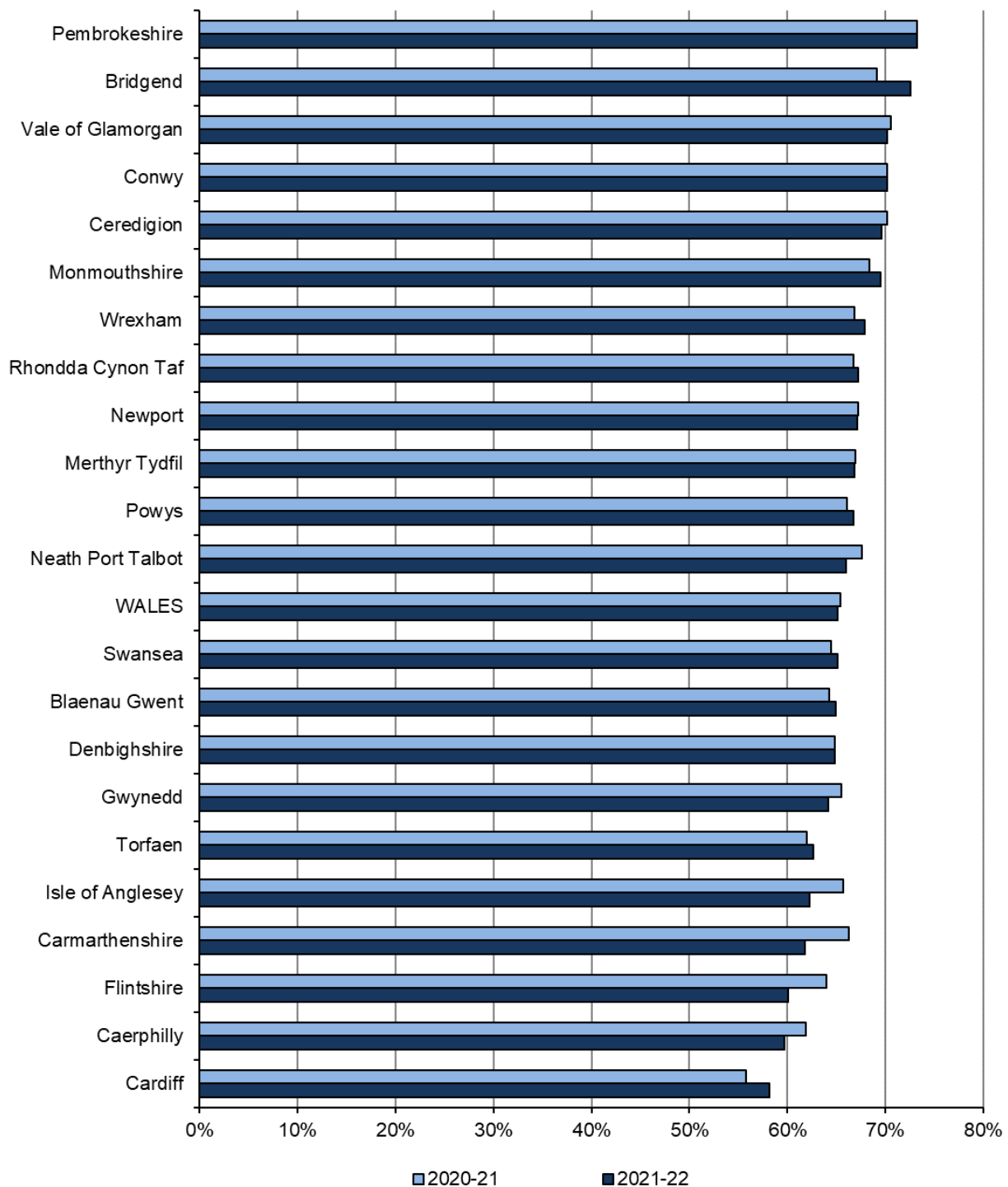
↓ In the same period, the non-household recycling rate decreased by 6.5 percentage points to 74.3%.

(r) Revised January 2023 due to an issue with calculations

Source: WasteDataFlow

Household waste accounts for the majority of all municipal waste collected (85.6%), and therefore changes in household recycling rates have a greater impact on the overall recycling rate than the non-household recycling rate.

Chart 3: Combined local authority municipal waste reuse/recycling/composting rates, by local authority, 2020-21 and 2021-22 (a)



(a) Local Authorities are listed in order of municipal waste reuse/recycling/composting rates based on 2021-22 figures.

Source: WasteDataFlow

Key points

- As previously mentioned, differences in recovery from the COVID-19 pandemic may make comparisons between 2020-21 and 2021-22 for each of the local authorities challenging.
- 10 of the 22 local authorities reported an increase in their recycling rate compared to 2020-21 ([Chart 3](#)).
- Recycling rates across the local authorities varied from 58.2% in Cardiff to 73.2% in Pembrokeshire.
- Under the "[Beyond Recycling' \(2021\)](#), strategy, recycling rate target for 2019-20 (64%) must be met by each local authority every year until the target increases to 70% (2024-25 onwards).
- 16 of the 22 local authorities met the statutory target of recycling at least 64% in 2021-22. The six that did not meet the target were: Torfaen, Isle of Anglesey, Carmarthenshire, Flintshire, Caerphilly and Cardiff.
- Flintshire, Torfaen, Caerphilly and Cardiff also did not reach the target in 2020-21. Isle of Anglesey and Carmarthenshire exceeded the target in 2020-21 but have now fallen below it.
- 4 of the 22 local authorities have already met the 2024-25 statutory target of 70%: Conwy, Vale of Glamorgan, Bridgend and Pembrokeshire. Of these four authorities, only Bridgend was below 70% in 2020-21, although this was a near miss at just over 69%. In 2019-20 and 2020-21 Ceredigion also met the 70% target rate however are slightly below this year at 69.6%.

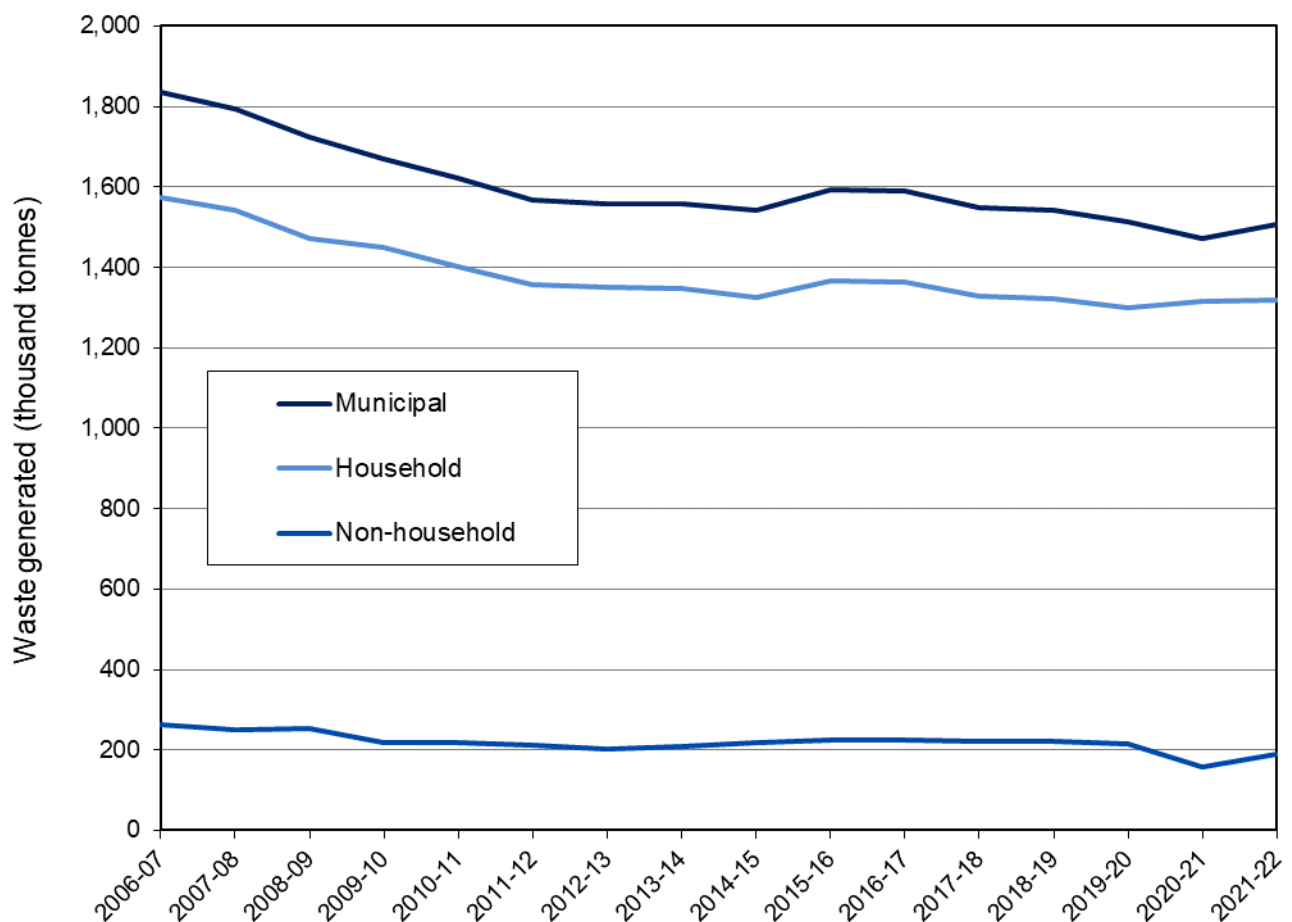
Waste generated (collected)

'Waste generated (collected)' is defined as waste collected directly, or from sites, by local authorities. There are sometimes differences in the amount of waste generated and the amount of waste sent for disposal by a local authority. This is due to stockpiling of waste collected in a previous year, delays in reporting across periods, inconsistencies in measurement as waste is weighed when it is collected and again when it is sent for treatment, and loss in weight through various treatment processes.

In general, the total amount of local authority municipal waste generated has gradually decreased in Wales since the early 2000's (with some fluctuation in recent years).



Chart 4: Total local authority municipal waste generated in Wales (thousand tonnes), 2006-07 to 2021-22



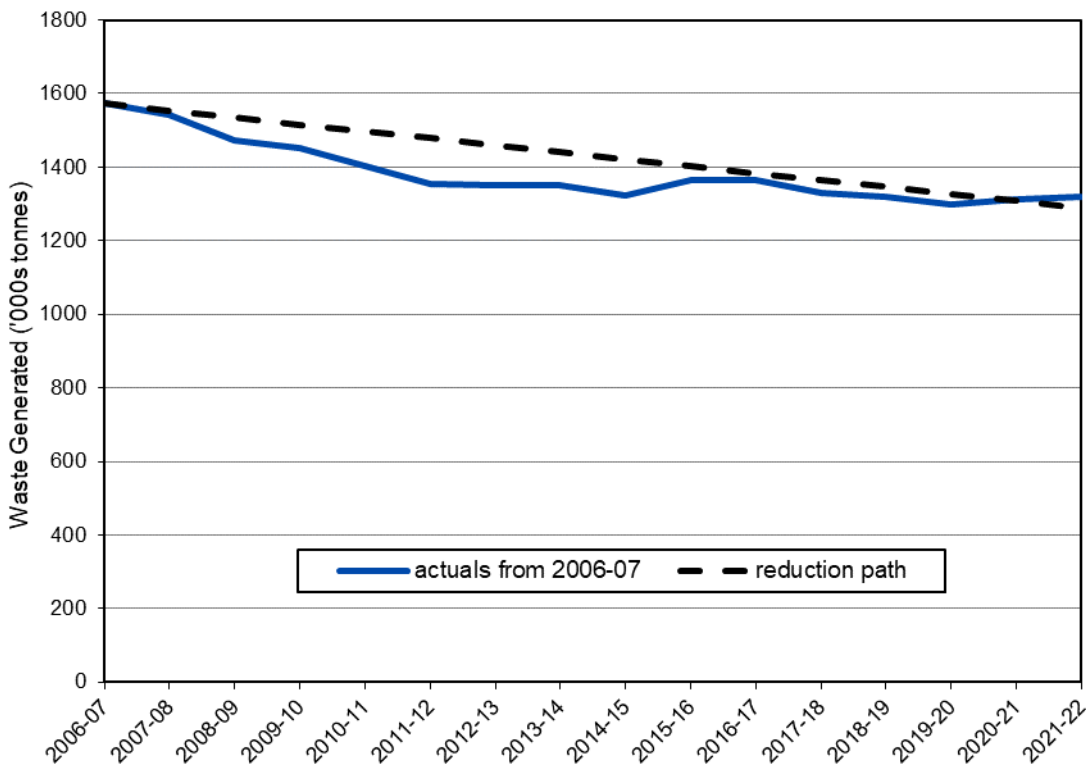
Source: WasteDataFlow

Key points

- Since 2006-07, municipal waste has decreased by 326 thousand tonnes from 1,834 thousand tonnes to 1,508 thousand tonnes in 2021-22. This is a 17.8% decrease. Household waste has decreased more in this period than non-household waste, accounting for 78% of the total decrease.

- Over the past year, the total amount of local authority municipal waste generated in Wales increased by 35 thousand tonnes, from 1,488 thousand tonnes in 2020-21 to 1,508 thousand tonnes in 2021-22 (Chart 4). This equates to a 1.4%, increase.
- Between 2020-21 and 2021-22, the volume of household waste generated in Wales increased by 0.3% whilst the volume of non-household waste increased by 19.7%. This increase in non-household waste can be seen to be returning to a similar level to the years before the COVID-19 pandemic.

Chart 5: Household waste collected in Wales from 2006-07 to 2021-22 (thousand tonnes) compared to the reduction path from 2006-07

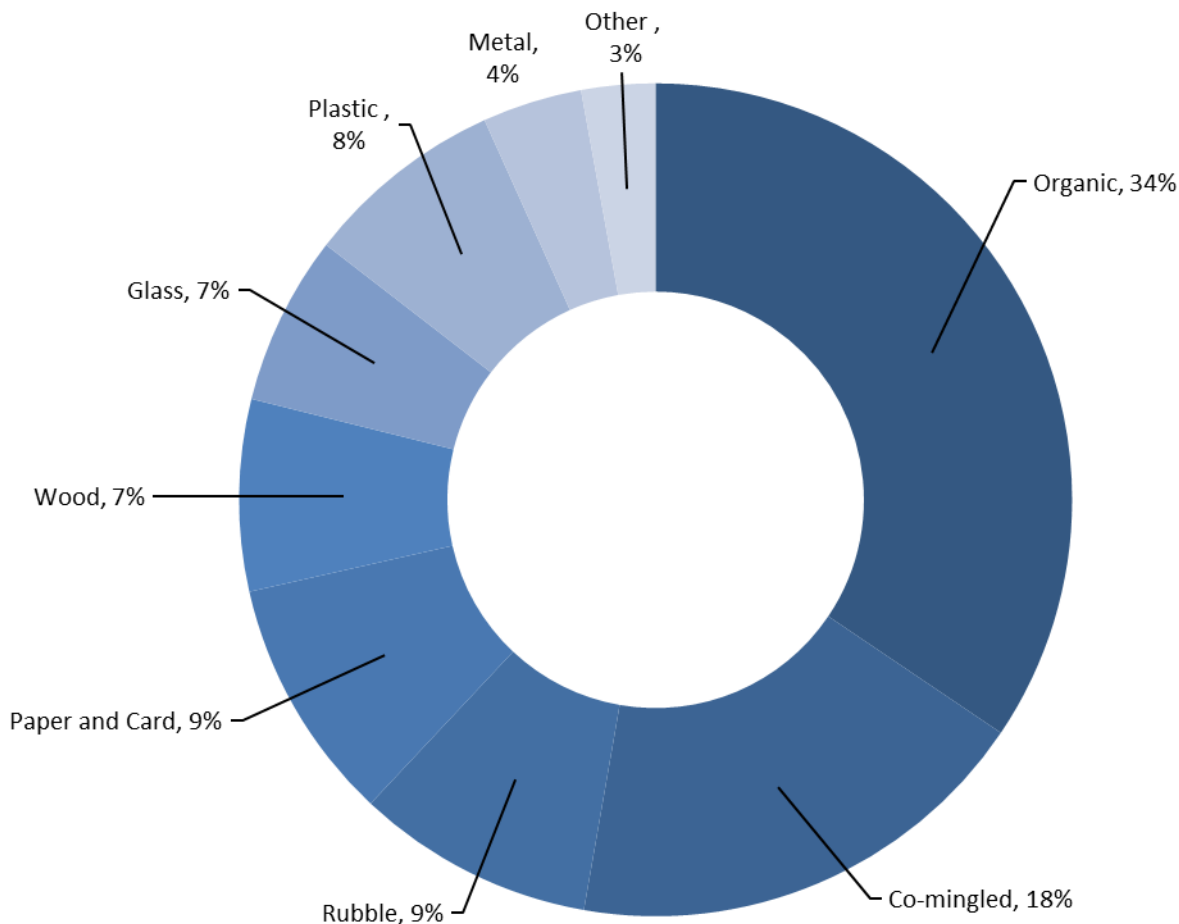


As part of the [‘Beyond Recycling’ \(2021\)](#), strategy a target was introduced to reduce the total amount of household waste collected to 761 thousand tonnes by 2050. A reduction path was implemented from 2006-07 to reduce household waste by 18 thousand tonnes each year, starting in 2006-07 at 1,572 thousand tonnes, in order to reach the target. Chart 5 shows the actual amount of household waste collected compared to the reduction path.

Key points

- The amount of household waste collected gradually decreased between 2006-07 and 2021-22, from 1,572 thousand tonnes to 1,318 thousand tonnes.
- The reduction in waste collected can be seen to generally follow the reduction path.
- Initially, the reduction in waste was slightly larger than the steady decrease of the reduction path, peaking in 2011-12 when the amount of waste collected was 7.8 percentage points lower than the reduction path. However in recent years the decrease has levelled off to show a steadier reduction, broadly following the 1.2% yearly target reduction.

Chart 6: Waste collected for reuse/recycling/composting in Wales by material, 2021-22 (%)



Source: WasteDataFlow

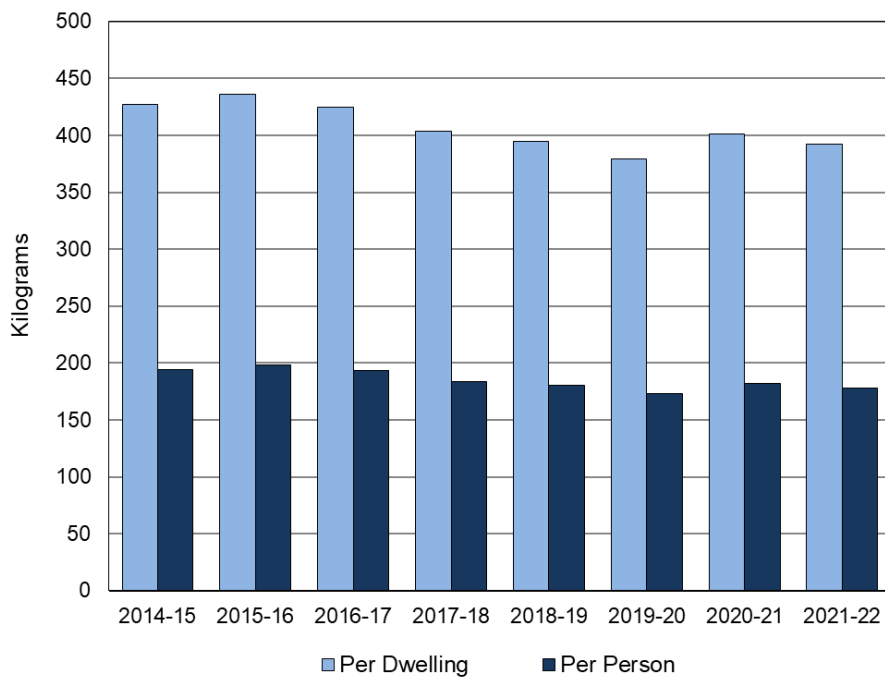
Key points

- The material distribution this year is very similar to last year, with only minor changes for some materials.
- A third of all material collected for reuse/recycling/composting in 2020-21 was '[Organic](#)' material (34%). Organic waste includes food, green (garden) and other compostable waste.
- '[Co-mingled](#)' materials accounted for 18% of all waste collected of reuse/recycling/composting.
- Just 7 per cent of waste collected for reuse/recycling/composting was classified as 'Metal or 'Other'. 'Metal' and 'Other' make up the lowest identified material collected for reuse/recycling/composting.

Residual household waste

'Residual household waste' is waste generated that is not included in separate recycling or composting collection rounds. That is, household waste that is not prepared for reuse, recycling or composting. The amount of residual household waste per person forms one component of the Wellbeing of Future generation's indicator on waste (see [Related Statistics](#) section).

Chart 7: Residual household waste in Wales (Kilograms), 2014-15 to 2021-22



↓ Residual household waste per person decreased by 2.2%, falling from 182kg in 2020-21 to 178kg in 2021-22.

↓ Residual household waste per dwelling also decreased by 2.2%, falling from 401kg in 2020-21 to 392kg in 2021-22.

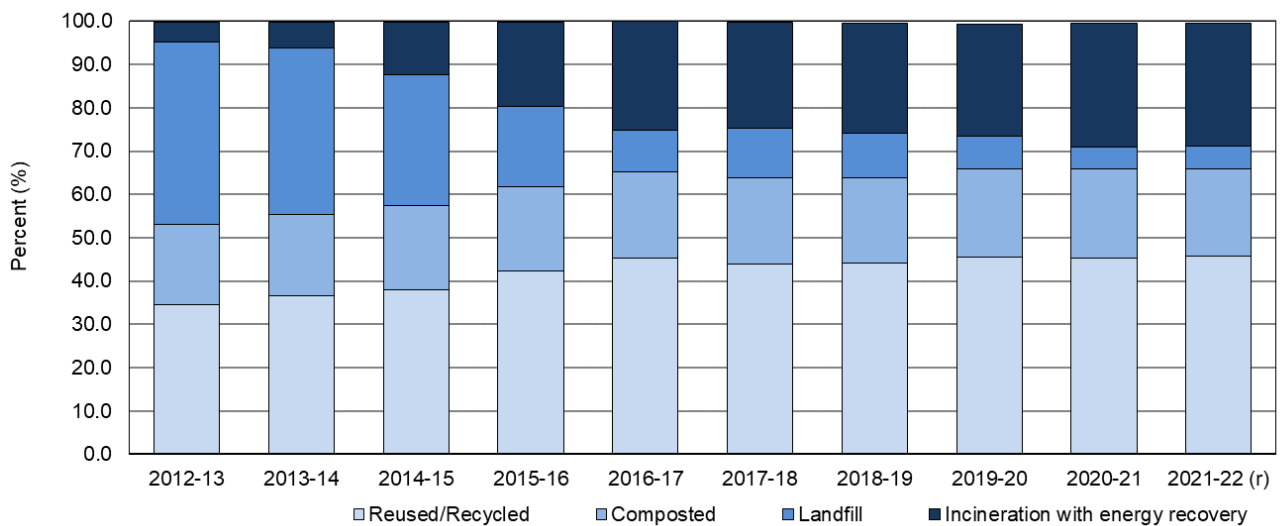
Source: WasteData Flow and Welsh Government

Waste management (sent)

'Waste management' data is based on the amount of waste sent for disposal/treatment, rather than the amount of waste generated (collected) by local authorities. The treatment of waste can consist of physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

There are sometimes differences in the amount of waste generated and the amount of waste sent for disposal by a local authority. This is due to stockpiling of waste collected in a previous year, delays in reporting across periods, inconsistencies in measurement as waste is weighed when it is collected and again when it is sent for treatment, and loss in weight through various treatment processes.

Chart 8: Waste sent for disposal/treatment by management method (%), 2012-13 to 2021-22 (Revised) (a)



(a) Chart 8 is a summary of all waste managed during the period. It uses the total waste managed as a denominator as opposed to the total waste generated, therefore recycling and landfill percentages are not directly comparable to national performance and local authority strategic indicators.

Source: WasteDataFlow

Key points

- Between 2012-13 and 2021-22, the amount of waste sent for disposal/treatment has remained fairly stable (around 1.5 to 1.6 million tonnes). However, there have been some considerable changes in management method.
- There has been a significant decrease in the proportion of waste disposed of via landfill (falling from 42.0% in 2012-13 to 5.2% in 2021-22).
- In contrast, there has been a substantial increase in the proportion of waste disposed of via incineration with energy recovery (rising from 4.7% in 2012-13 to 28.4% in 2021-22). The percentage of waste disposed of via incineration decreased by 0.3 percentage points compared to last year.

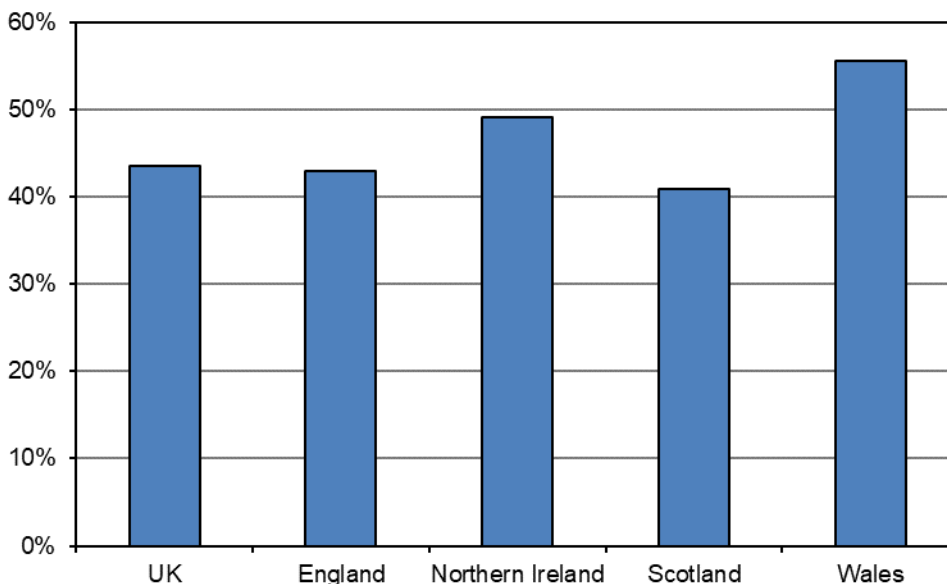
- Of all waste sent for disposal/treatment in 2021-22, a total of 983 (r) thousand tonnes were reused/recycled/composted. This is a slight increase on the amount of waste reused-recycled compared to last year rising from 45.4% in 2020-21 to 45.7% in 2021-22.

(r) Revised January 2023 due to issues with the calculations

Related statistics

1. UK Data: Municipal waste management statistics are also published for other parts of the UK. The Department for Environment, Food and Rural Affairs publish an annual [UK Statistics on Waste](#) data set, which includes a ‘Waste from households’ recycling rate for each UK country. This is based on a methodology that is as consistent as possible across the UK, but differs slightly from the Wales household recycling rate appearing earlier in this release. Latest data shows that the Waste from households recycling rate for Wales is considerably higher than for the other UK countries.

Chart 9: Recycling rate by UK country, 2020 (%)



Source: The Department for Environment, Food and Rural Affairs

Waste collection and disposal are large devolved matters so there are difference in both policy and operation within the UK. The four countries have put together a document to show the similarities and differences within the UK to help reach consistent UK statistics: [Local Authority Waste Statistics – Recycling Measures](#).

2. Wellbeing of Future Generations: One of the national indicators relates to waste ‘[Amount of waste generated that is not recycled, per person](#)’. This is defined as the total amount (kg) of residual waste (i.e. waste that is not collected for reuse, recycling or composting) in Wales, by all sectors, on a per person basis. This indicator is calculated from three separate elements – Household waste, Construction & Demolition (C&D) Waste and Industrial & Commercial (I&C) Waste. Whilst the household element is updated quarterly, the latest

[Construction & Demolition](#) and [Industrial & Commercial](#) data relate to 2019 and 2018 respectively. The amount of waste generated that was not recycled, per person in 2012 was 523kg. Of the total 1,650 thousand tonnes of waste not recycled, 545 thousand was from household waste, 138 thousand from Construction and Demolition waste and 966 thousand from Industrial and Commercial waste.

3. Landfill Allowances Scheme: Natural Resources Wales publish an annual report on the [Landfill Allowances Scheme](#). The purpose of the scheme is to ensure diversion of biodegradable municipal waste (BMW) from landfill. Welsh Government sets limits on the amount of BMW waste that local authorities in Wales can landfill.
4. [Local Authority Recorded Fly Tipping](#): A summary of fly-tipping incidents, enforcement actions and prosecution outcomes is published annually by the Welsh Government.

Key Quality Information

Detailed Quality Information, including the context of the release, its uses, strengths and limitations, data processing cycle and administrative data quality assurance information are available in the accompanying [Quality Report](#).

Revision

Following the original publication of this release in November 2022, an error was noted within the data system in the way waste collected and waste disposed of are reconciled. Revisions were made in January 2023. This led to an error of 659 tonnes for one of the local authorities household waste management figures. At the Wales level, the recycling rate does not change to the one decimal place that we quote in this release. This error has not impacted on the headline recycling rate for the local authority.

National Statistics status

The [United Kingdom Statistics Authority](#) has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Statistics](#).

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

The continued designation of these statistics as National Statistics was confirmed in October 2020 following a compliance check by the [Office for Statistics Regulation](#). Since the latest review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- Explaining where there are differences between the different administrations in the UK and why these arise. The four countries have put together a document to show the similarities and differences within the UK to help reach consistent UK statistics: [Local Authority Waste Statistics – Recycling Measures](#).
- Explaining more about how the government statisticians engage with users to find out about and meet user needs.
- Explaining the impact of COVID 19 on the statistics.
- Improve the accessibility of the statistics to meet the new standards that came into force on 23 September 2020.

These recommendations will be addressed during the following year to improve the next release. It will also be possible to address some by updating the quality report during the year.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing 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 wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. Under section 10(8) of the Well-being of Future Generations Act, where the Welsh Ministers revise the national indicators, they must as soon as reasonably practicable (a) publish the indicators as revised and (b) lay a copy of them before the Senedd. These national indicators were laid before the Senedd in 2021. The indicators laid on 14 December 2021 replace the set laid on 16 March 2016 and this release includes 1 of the national indicators 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.

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

As a national indicator under the Act they must be referred to in the analyses of local well-being produced by public services boards when they are analysing the state of economic, social, environmental and cultural well-being in their areas.

The Act states national milestones must be set that “...the Welsh Ministers consider would assist in measuring whether progress is being made towards the achievement of the well-being goals.” In doing so Welsh Ministers must specify how we know that a national milestone has been achieved and the time by which it is to be achieved.

National milestones are not performance targets for any individual organisation, but are collective measures of success for Wales.

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 wellbeing assessments and local wellbeing plans.

Further details

The document is available here: <https://gov.wales/local-authority-municipal-waste-management>.

Useful links

Current Welsh Government waste strategy “[Beyond Recycling](#)’ (2021).

Recycling in Wales ‘[My Recycling Wales website](#)’.

More general information can be found on the [Natural Resources Wales website](#).

Next update

Local Authority Municipal Waste, April to June 2022 – due to be published January 2023

Local Authority Municipal Waste, 2022-23 – due to be published October 2023

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.environment@gov.wales.

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Glossary

Co-mingled

Recyclate consisting of different types of recyclable materials that are mixed together or unsorted such as paper, metal, plastic and glass.

Composting

An aerobic, biological process in which organic wastes, such as garden and kitchen waste, are converted into a stable granular material which can be applied to land to improve soil structure and increase the nutrient content of the soil.

Compost-like output

When mixed municipal solid waste is biologically treated in Mechanical Biological Treatment (MBT) plants, the output is known as a 'compost-like-output'.

Dry recycling

The recycling of dry materials, such as paper, card, cans, plastic bottles, mixed plastic and glass.

Household waste

Materials collected directly from households (kerbside collections), taken to bring sites (including civic amenity sites) or collected by private and voluntary organisations not included elsewhere.

Incinerator bottom ash

The ash that is left over at the bottom of an incinerator after waste is burnt.

Landfill sites

Any areas of land in which waste is deposited are termed landfill sites. They are often located in disused mines or quarries. In areas where these are limited or no ready-made voids exist, the practice of landraising is sometimes carried out; waste is deposited above ground and the landscape is contoured.

Local authority municipal waste

Household and non-household waste that is collected and disposed of by local authorities. It includes regular household collections, specific recycling collections, special collections of bulky items, waste received at civic amenity sites and waste collected from non-household sources (e.g. rubble, incinerator residues, matter from beach cleansing and plasterboard). Local authority municipal waste excludes abandoned vehicles.

Non-household municipal waste

All waste collected by an authority or its contractors, other than wastes within Schedule 1 and 2 of the Controlled waste Regulations 1992. This includes any other wastes collected by an authority, such as municipal parks and gardens waste, industrial or commercial waste and waste resulting from the clearance of fly-tipped materials.

Organic

Organic waste includes food, green (garden) and other compostable waste.

Preparation for re-use

Local authority municipal waste is prepared for re-use for the purpose of the targets when:

- (a) a waste product or component of a waste product has undergone a checking, cleaning or repairing recovery operation; and
- (b) the waste product or component of a waste product can be re-used for its original purpose.

Recycling

Any recovery operation by which waste materials are reprocessed into products, materials or substances, whether for the original or other purposes. It does not include energy recovery and the reprocessing into materials that are used as fuels of backfilling operations.

Residual waste

Waste that is not prepared for reuse, recycling or composting.

Reuse

The use of household waste removed from the local authority collected municipal waste stream (e.g. furniture from households, including that collected on behalf of a local authority by third parties) for its original or a different purpose, without processing or treatment in a waste recovery operation, other than one which has the purpose of repairing or refurbishing the household waste.

Reuse/recycling/composting rate (statutory target definition)

Percentage of local authority municipal waste generated that is recycled, reused or composted, calculated at time of distribution to landfill or recycling/composting contractors. This is, therefore, based on the amount of waste sent for reuse, recycling or composting, rather than collected for the purpose of being reused, recycled or composted.

Treatment

Physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.