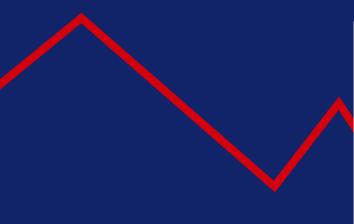




Northern Ireland Local Authority Collected Municipal Waste Management Statistics

Annual Report 2023/24









Department of

Agriculture, Environment and Rural Affairs

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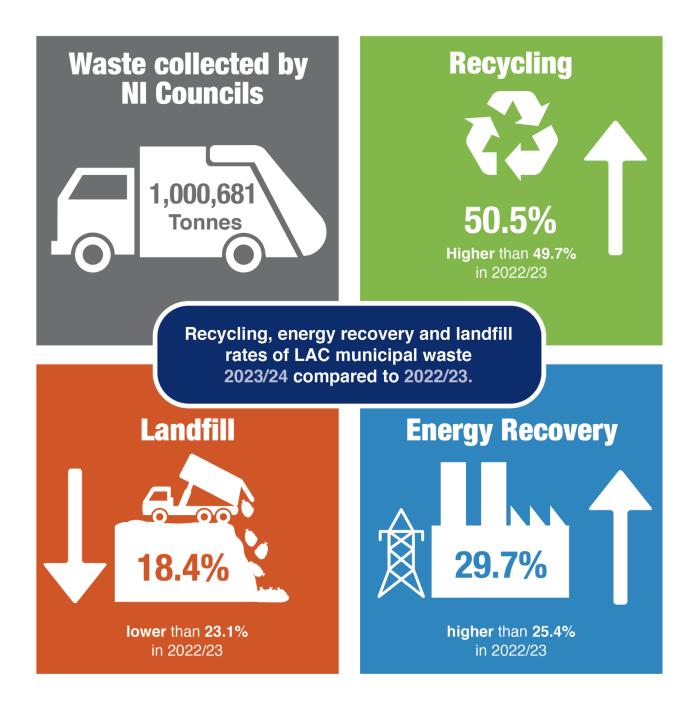
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Key Points for Northern Ireland

- Northern Ireland's councils collected 1,000,681 tonnes of waste during 2023/24 which was 3.0 per cent higher than the amount collected in 2022/23. During 2023/24, 50.5 per cent of waste collected by councils was sent for recycling which was higher than the 49.7 per cent recycling rate reported in 2022/23.
- The landfill rate for waste collected by councils was 18.4 per cent in 2023/24, a fall from 74.0 per cent in 2006/07 and 23.1 per cent in 2022/23.
- In 2023/24, 29.7 per cent of waste arisings were sent for energy recovery. This compares to 25.4 per cent in 2022/23 and 0.4 per cent in 2009/10.
- Household waste accounted for 87.5 per cent of all local authority collected waste during 2023/24. The recycling rate for household waste was 51.1 per cent whilst the landfill rate for household waste was 18.0 per cent.
- Belfast generated the smallest amount of household waste per capita at 405 kg whilst Antrim & Newtownabbey recorded the largest at 545 kg per capita.
- There were 95,425 tonnes of biodegradable waste sent to landfill during 2023/24, a decrease of 21.7 per cent from the quantity reported in 2022/23 (121,925 tonnes).

Issue No: 15

Date of Publication: 28 November 2024 **Theme:** Agriculture and Environment

Reporting Period:

1 April 2023 to 31 March 2024

URL: https://www.daera-ni.gov.uk/articles/northern-ireland-local-authority-collected-municipal-waste-management-statistics

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Reader Information

This document may be made available in alternative formats, please contact us to discuss your requirements. Definitions of key terms used in this publication are available in Appendix 2 - Glossary.

Purpose

This is an annual publication which reports finalised figures on the key measurements of local authority collected municipal waste for councils and waste management groups in Northern Ireland.

The data contained are used by local authorities, waste management groups, Devolved Administrations, UK Government and the EU to measure progress towards achieving targets from various waste strategies including:

- The revised Northern Ireland Waste Management Strategy
- The Waste Framework Directive

Data on household recycling was a population indicator for the previous Programme for Government (PfG) and has been proposed as an indicator in the forthcoming PfG.

The data are also used by media, the general public and special interest groups to inform policy and lifestyle choices related to the treatment of waste.

Further details are available in Appendix 1 – Main Uses of Data

Next Updates

- Provisional figures for July to September 2024 will be available in January 2025.
- Finalised data for 2024/25 are scheduled to be published in November 2025 and will supersede previously published data from the four quarterly returns for that financial year.
- The scheduled dates for all upcoming publications are available from the GOV.UK statistics release calendar: https://www.gov.uk/government/statistics

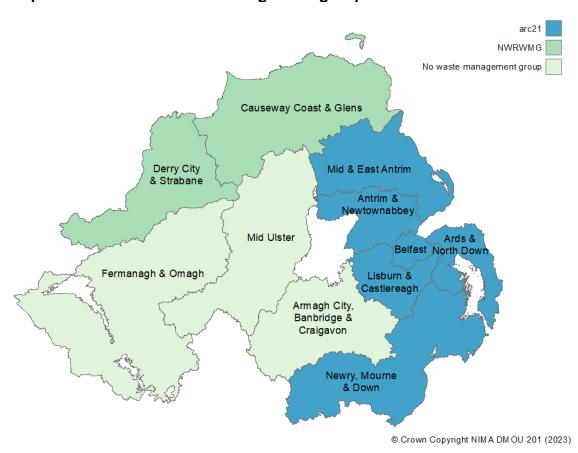
Introduction

This report presents finalised and validated information on the quantities of local authority collected (LAC) municipal waste collected and managed in Northern Ireland over the 2023/24 financial year, as well as trend data over previous years. It provides information on the quantities of waste arising, sent for preparing for reuse, dry recycling, composting, energy recovery and sent to landfill. Some of these measurements are key performance indicators (KPIs). These are used to assess progress towards achieving waste strategy targets and where appropriate this is highlighted in the tables and charts.

Waste Management Groups (WMGs) produce, develop and implement Waste Management Plans for their areas of responsibility and are an important part of the data submission process. Figure 1 shows how eight councils have formed into two WMGs with 3 councils unaffiliated to any group. The group with the largest share of the population is arc21 with 59 per cent. The North West Regional Waste Management Group (NWRWMG) has 15 per cent of the population with the remaining 26 per cent residing in councils not belonging to a waste management group.

There are six councils in **arc21**: Antrim & Newtownabbey; Ards & North Down; Belfast; Lisburn & Castlereagh; Mid & East Antrim; and Newry, Mourne & Down. **NWRWMG** contains two councils: Causeway Coast & Glens; and Derry City & Strabane. The remaining three councils are not members of a WMG: Armagh City, Banbridge & Craigavon; Fermanagh & Omagh; and Mid Ulster.

Figure 1: Map of councils and waste management groups in Northern Ireland



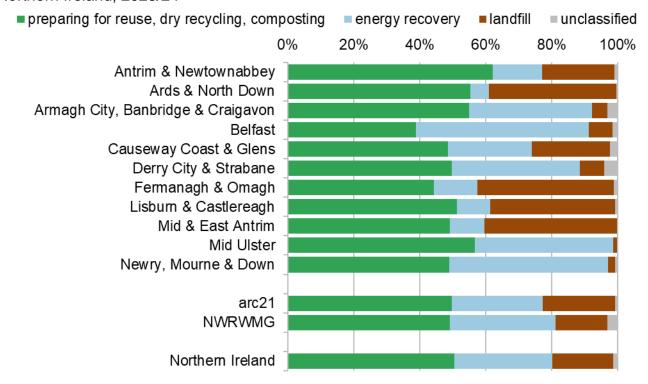
Overview

This report presents information on the quantities of local authority collected municipal waste managed in Northern Ireland during the 2023/24 financial year. The report is split into four sections, each of which cover local authority collected (LAC) municipal waste and, where appropriate, household waste:

- waste arisings (pages 5-8),
- reuse, dry recycling and composting (pages 9-13),
- energy recovery (pages 14-16),
- landfill (pages 17-19).

Figure 2: Waste preparing for reuse, dry recycling, composting, energy recovery and landfill rates by council and waste management group

Northern Ireland, 2023/24



At the Northern Ireland level, 50.5 per cent of waste collected by councils was sent for preparing for reuse, dry recycling and composting during 2023/24. Energy recovery accounted for 29.7 per cent whilst 18.4 per cent was sent to landfill. The remaining 1.4 per cent is likely to involve moisture and/or gaseous losses. Each of the rates are discussed in detail in the appropriate section of the report.

The rate of waste sent for preparing for reuse, dry recycling and composting was 0.9 percentage points higher than the rate recorded in 2022/23. The energy recovery rate increased by 4.3 percentage points whilst the landfill rate decreased by 4.8 percentage points.

Household waste accounted for 87.5 per cent of total waste. Household waste includes materials collected directly from households via kerbside collections, material taken to bring sites and civic amenity sites as well as several other smaller sources.

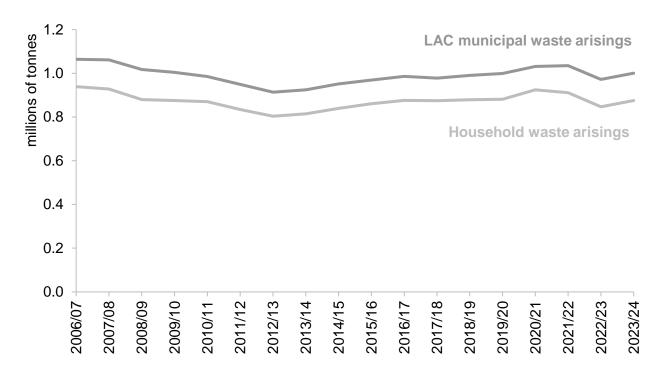
Waste Arisings

The total quantity of local authority collected (LAC) municipal waste arisings is a key performance indicator, KPI (j). This indicator is also used to monitor performance under the <u>Local Government (Performance Indicators and Standards) Order (Northern Ireland)</u> 2015.

In 2023/24, Northern Ireland's councils collected 1,000,681 tonnes of waste. This is 3.0 per cent higher than in 2022/23 when 971,936 tonnes were collected. The tonnage of waste collected at kerbside increased by 2.2 per cent during 2023/24 compared to the previous year, whilst waste collected at civic amenity sites increased by 6.5 per cent.

Since 2006/07 household waste has accounted for 86-90 per cent of total waste collected by councils. In 2023/24 household waste accounted for 87.5 per cent. Household waste includes materials collected directly from households via kerbside collections, material taken to bring sites and civic amenity sites as well as several other smaller sources. The remaining 12.5 per cent was non-household waste such as rubble/soil and commercial/industrial waste.

Figure 3: Waste arisings
Northern Ireland, 2006/07 to 2023/24, KPI (j)

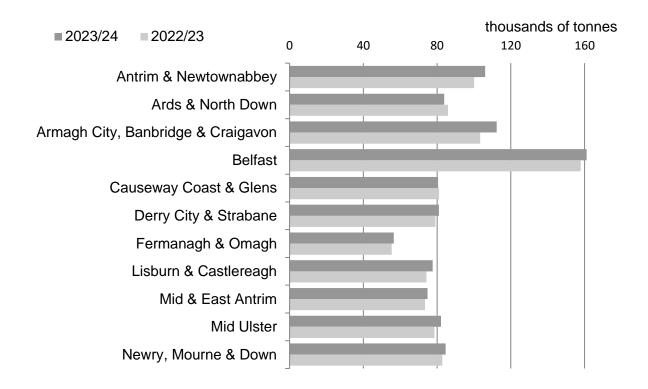


Total waste arisings fell from 1,064,090 tonnes in 2006/07 to a low of 913,546 in 2012/13, a 14.1 per cent decrease. From then until 2021/22, total arisings showed a generally increasing trend. A reduction in arisings was recorded in 2022/23 but in the latest year arisings have increased by 3.0 per cent to 1,000,681 tonnes.

Factors affecting waste arisings, the majority of which is household waste, include individual household behaviours, the advice and collection services provided by councils, the state of the economy and the weather conditions during the year.

Figure 4: Waste arisings by council

Northern Ireland, 2022/23 and 2023/24, KPI (j)

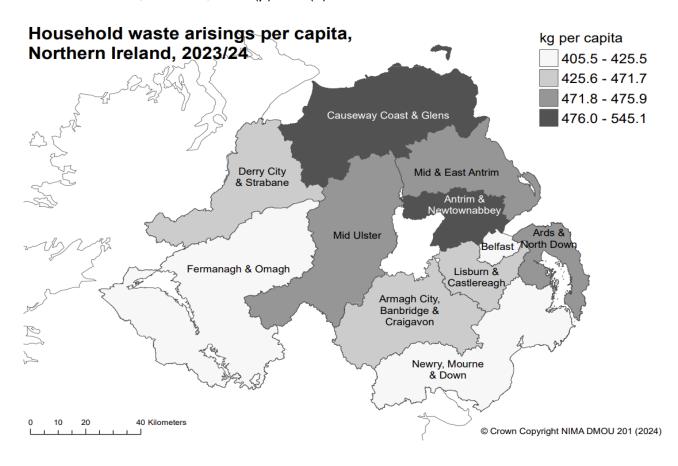


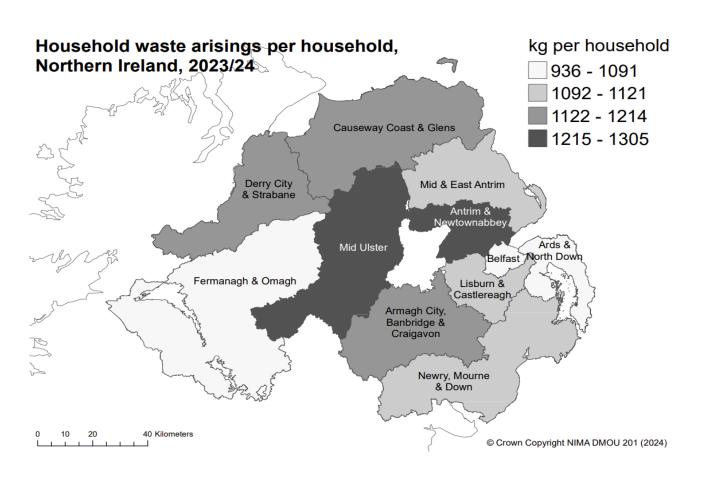
The proportion of waste collected by each council broadly reflects the population within the councils. Belfast City Council had the greatest waste arisings in 2023/24 with 161,097 tonnes. This was 16 per cent of total Northern Ireland waste arisings, with 18 per cent of the population living in this council area. Fermanagh & Omagh District Council had the lowest arisings in 2023/24 with 56,521 tonnes collected. This represented 6 per cent of total arisings during this period, the same as the proportion of the population living in the council area.

Nine councils reported increases in their waste arisings compared with last year, with Armagh City, Banbridge & Craigavon reporting the largest increase at 8.7 per cent. Antrim & Newtownabbey and Lisburn & Castlereagh reported increases of 6.0 and 4.6 per cent respectively. Ards & North Down and Causeway Coast & Glens reported a decrease in waste arisings to that reported in 2022/23.

There are two key performance indicators which look at household waste arisings in more detail by considering household waste arisings per capita, KPI (p), and per household KPI (h). In Northern Ireland there were 458 kilogrammes (kg) of household waste collected per capita and 1,118 kg per household during 2023/24, compared to 443 kilogrammes (kg) of household waste collected per capita and 1,091 kg per household during 2022/23.

Figure 5: Household waste arisings per capita and per household by council Northern Ireland, 2023/24, KPIs (p) and (h)





Belfast generated the smallest amount of household waste per capita at 405 kg in 2023/24, followed by Fermanagh & Omagh and Newry, Mourne & Down. The largest quantity was recorded in Antrim & Newtownabbey at 545 kg per capita. Household waste per capita increased in all council areas except Ards & North Down. The largest increases compared to last year were recorded in Armagh City, Banbridge & Craigavon, Lisburn & Castlereagh and Antrim & Newtownabbey at 9.3 per cent, 5.4 per cent and 5.0 per cent respectively.

Household waste arisings per household are also shown in figure 5. Belfast City Council generated the smallest quantity of household waste per household at 936 kg per household. The largest quantity per household was recorded in both Antrim & Newtownabbey and Mid Ulster at 1,305 kg per household.

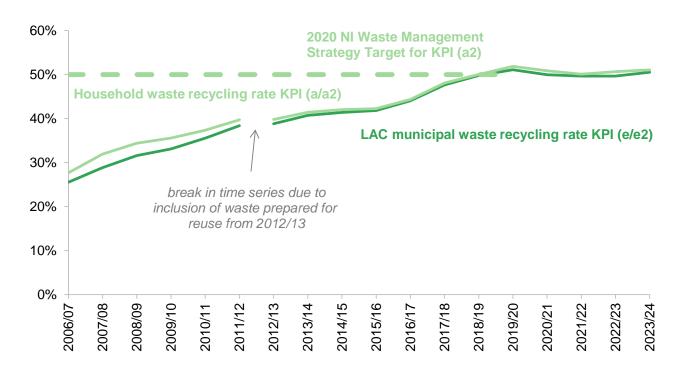
The arisings figures can be found in Tables 1 and 2 of the data tables appendix. The per capita and per household figures can be found in Table 18. All figures are also available from the <u>time series dataset</u>.

Recycling (preparing for reuse, dry recycling and composting)

This section of the report looks at local authority collected (LAC) municipal and household waste recycling rates. Both are key performance indicators and now include waste sent for preparing for reuse, dry recycling and composting. Previously used key performance indicators KPI (a) and (e) have been modified, in line with the rest of the UK, to include waste sent for preparing for reuse, and relabelled as KPI (a2) and (e2). The impacts were small, adding 0.1 - 0.3 percentage points to the rates, and resulted in the break in the time series visible in Figure 6. The KPI (a2) indicator is also used to monitor performance under the Local Government (Performance Indicators and Standards) Order (Northern Ireland) 2015.

In 2023/24, the LAC tonnage of waste sent for preparing for reuse, dry recycling and composting (referred to as 'recycling' for the rest of this section) was 505,647 tonnes. The recycling rate was 50.5 per cent, 0.9 percentage points higher than the recycling rate recorded in 2022/23.

Figure 6: Waste sent for preparing for reuse, dry recycling and composting Northern Ireland, 2006/07 to 2023/24, KPIs (a), (a2), (e), (e2)



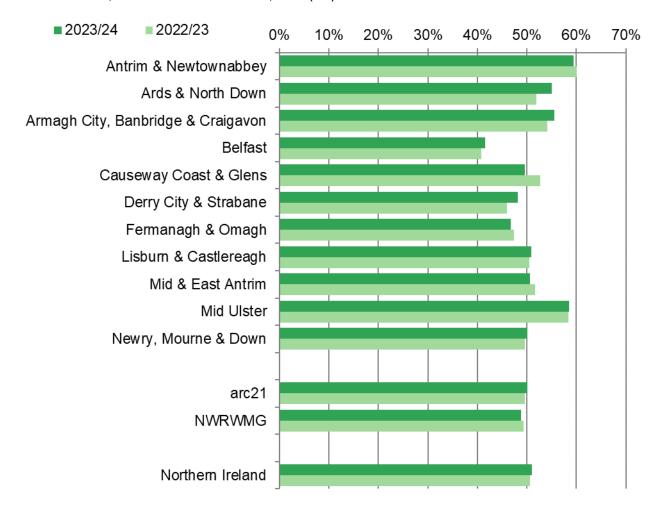
The household waste recycling rate was 51.1 per cent in 2023/24, similar to the household waste recycling rate recorded in 2022/23. The proportion of household waste sent for preparing for reuse was 0.3 per cent, dry recycling made up 22.7 per cent and composting was 28.0 per cent.

The household waste recycling rate continues to meet the Northern Ireland Waste Management Strategy target to recycle 50 per cent of household waste by 2020. Additionally, the Programme for Government Framework 2016-2021 contained the percentage of household waste that is reused, recycled or composted as an indicator under outcome 2: we live and work sustainably, protecting the environment. It is also proposed as a population indicator in the next Programme for Government Framework.

Figure 7a compares the household recycling rates for 2023/24 and 2022/23, whilst figure 7b illustrates changes to the component parts of the household recycling rates for each council.

Figure 7a: Household waste preparing for reuse, dry recycling and composting rate by council and waste management group

Northern Ireland, 2022/23 and 2023/24, KPI (a2)



The lowest household waste recycling rate was recorded in Belfast at 41.6 per cent. The highest household waste recycling rates were recorded in Antrim & Newtownabbey and Mid Ulster at 59.4 per cent and 58.6 per cent respectively.

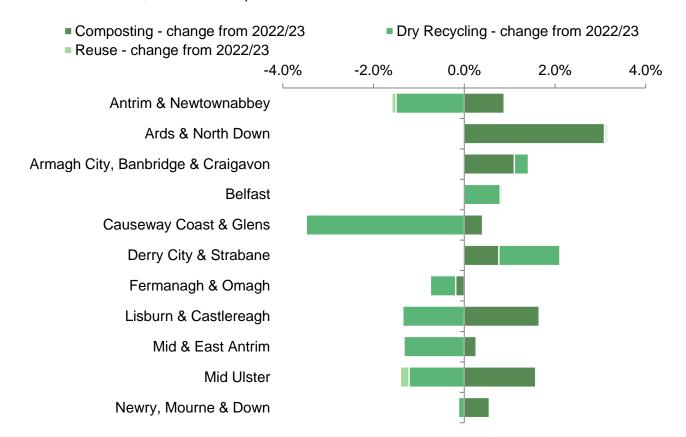
Four councils reported increased household recycling rates compared to 2022/23, with Ards & North Down reporting the largest increase at 3.2 percentage points. Smaller increases in household recycling rates were reported in Derry City & Strabane, Armagh City, Banbridge & Craigavon and Belfast. Four councils reported decreased household recycling rates compared to 2022/23, with Causeway Coast & Glens reporting the largest decrease at 3.1 percentage points. The remaining councils reported similar rates to 2022/23¹.

¹ Very small increases or decreases in figures (<0.5 per cent or <0.5 percentage points) are not highlighted in the commentary.

There was considerable variation in household dry recycling and composting rates between councils. Derry City & Strabane recorded the highest dry recycling rate at 29.2 per cent, whilst Lisburn & Castlereagh recorded the lowest rate at 17.5 per cent. The highest composting rate was recorded in Antrim & Newtownabbey at 36.5 per cent with Derry City & Strabane and Belfast both having the lowest rate at 18.6 per cent. Differences in composting rates across the council areas can be affected by variations in the urban-rural characteristics of the council areas.

Dry recycling and composting rates for household waste remained relatively stable for most councils compared to the previous year. The largest change in composting was an increase recorded in Ards & North Down where the rate increased by 3.1 percentage points. The largest change in dry recycling rate was a decrease of 3.5 percentage points in Causeway Coast & Glens compared to the rate in 2022/23.

Figure 7b: Change reported for household waste preparing for reuse rate, dry recycling rate and composting rate by council Northern Ireland, 2023/24 compared to 2022/23



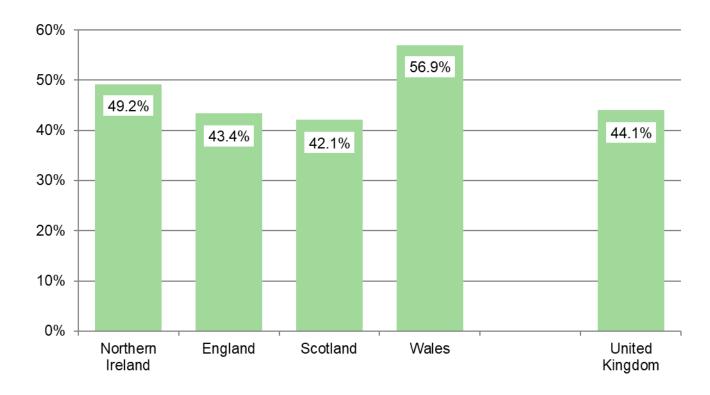
Waste from households recycling rate (including preparing for reuse and composting)

An additional recycling rate metric named 'waste from households recycling rate', whilst not a key performance indicator, can be used to make comparisons between each of the four UK countries. The UK waste from households recycling rate is reported by calendar year and was 44.1% in 2022, similar to the rate reported in 2021. The waste from household recycling rate for Northern Ireland was 49.2 per cent in 2022, compared with 43.4 per cent in England, 42.1 per cent in Scotland and 56.9 per cent in Wales.

The latest comparison for finalised annual figures (by calendar year) is shown in Figure 8, with further data available at https://www.gov.uk/government/statistics/uk-waste-data

Figure 8: Waste from households recycling rate (including preparing for reuse and composting)

Comparison of UK Countries, 2022

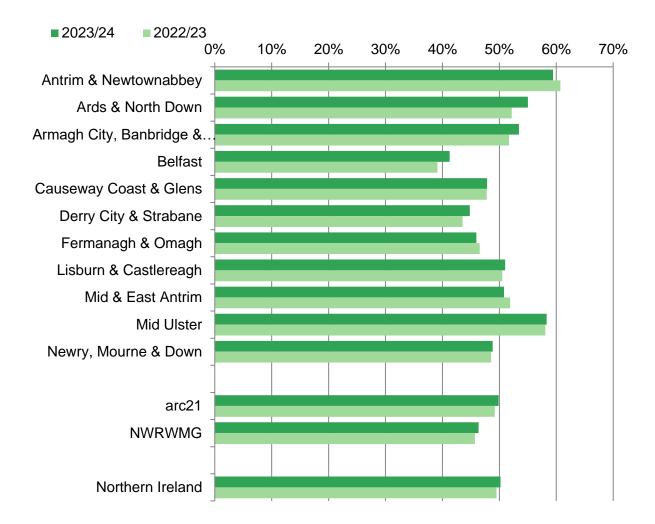


The latest statistics available for waste from household in Northern Ireland are provided below and relate to the 2023/24 financial year.

In 2023/24 there were 421,332 tonnes of waste from households sent for recycling (including preparing for reuse and composting). The waste from households recycling rate was 50.2 per cent. This was an increase of 0.7 percentage points from the 49.5 per cent of waste from households sent for recycling in 2022/23.

Figure 9: Waste from households recycling rate (including preparing for reuse and composting)

Northern Ireland, 2022/23 and 2023/24



All figures for the recycling section can be found in the accompanying data tables spreadsheet and also in the <u>time series dataset</u>.

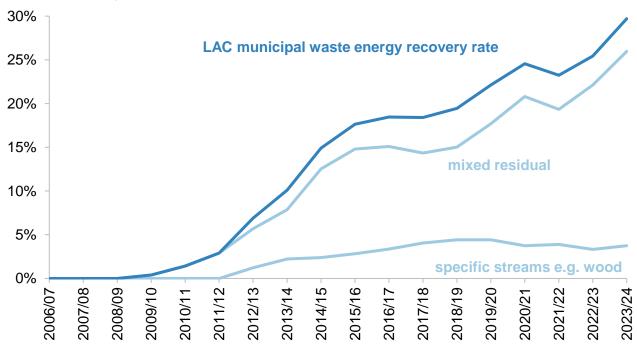
- Tables 3 and 4 (Waste recycling)
- Tables 16 and 17 (Household waste recycling)
- Table 23 (Waste from household recycling)

Energy recovery

This annual report includes figures on energy recovery, which is the term used when value is gained from waste products by converting them into energy. All energy recovery figures reported in this section are derived from material sent for energy recovery via incineration/gasification, although other technologies exist. Energy recovery via anaerobic digestion is not included in the figures below and is discussed in more detail at the end of the section.

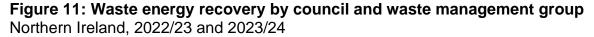
In 2023/24, 297,262 tonnes of waste arisings were sent for energy recovery. This produced an energy recovery rate of 29.7 per cent, higher than the 25.4 per cent recorded in 2022/23. The majority of energy recovery is derived from mixed residual waste with a smaller proportion from specific streams, e.g. wood.

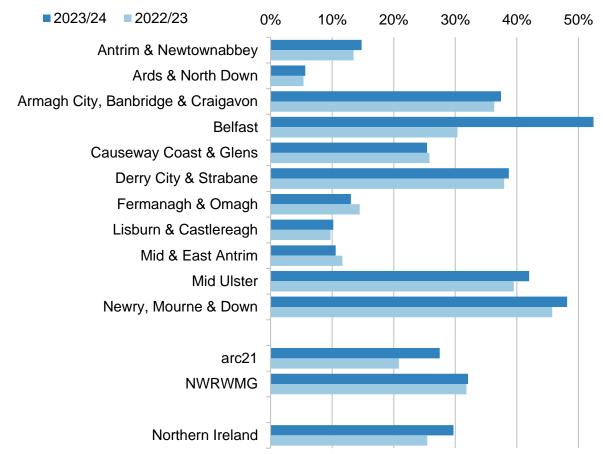
Figure 10: Waste sent for energy recovery via incineration Northern Ireland, 2006/07 to 2023/24



There was zero, or very small quantities, of waste sent for energy recovery before 2009/10. Strong growth followed from 2010/11, with the energy recovery rate increasing from 0.4 per cent in 2009/10 to 29.7 per cent in 2023/24.

Mixed residual waste sent for energy recovery is combustible residual waste collected from the kerbside and from civic amenity sites and processed into refuse derived fuel at material recovery facilities. The specific streams element of energy recovery is mostly wood but also includes furniture, carpets and mattresses, mostly collected from civic amenity sites.





Belfast and Newry, Mourne & Down had the highest energy recovery rates in 2023/24 at 52.5 per cent and 48.2 per cent respectively. The lowest energy recovery rate was 5.6 per cent recorded in Ards & North Down, similar to 2022/23.

Seven councils reported an increase in the energy recovery rate in 2023/24 compared to 2022/23, the largest of which was in Belfast at 22.1 percentage points, followed by Mid Ulster and Newry, Mourne & Down. Fermanagh & Omagh and Mid & East Antrim recorded small decreases in their energy recovery rates, whilst the remaining councils reported similar rates to the previous year.

Ards & North Down was the only council where energy recovery from specific streams accounted for a greater proportion of their total energy recovery than mixed residual waste. Antrim & Newtownabbey had the highest energy recovery rate for specific streams at 6.4 per cent while Belfast had the highest energy recovery rate for mixed residual waste at 50.6 per cent.

Energy Recovery via Anaerobic Digestion

The tonnages relating to energy recovery from material undergoing anaerobic digestion are still accounted for under the recycling section since the vast majority of the tonnage of waste undergoing this process eventually ends up as a compost (once the methane generated from the anaerobic digestion process has been collected). Table 13 in the data tables appendix shows the amount of food waste anaerobically treated to recover energy before ending up as a compost.

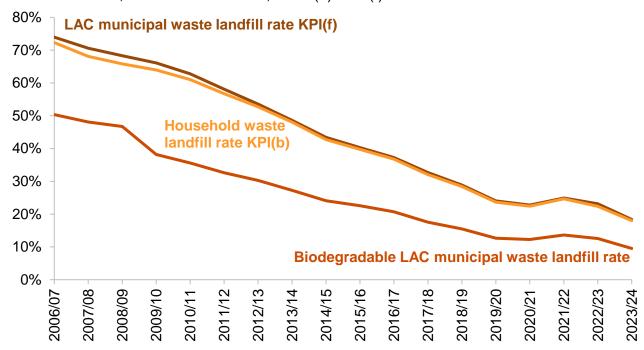
These figures can be found in Tables 3, 4 and 13 of the data tables appendix and in the time series dataset.

Landfill

The quantity of waste sent to landfill decreased by 18.3 per cent from 225,000 to 183,748 tonnes between 2022/23 and 2023/24. This produced a landfill rate of 18.4 per cent for 2023/24, 4.8 percentage points lower than the 23.1 per cent recorded in 2022/23 and the lowest rate ever recorded.

The landfill rate for household waste also recorded its lowest value in 2023/24 at 18.0 per cent, a decrease of 4.4 percentage points from 22.4 per cent in 2022/23.

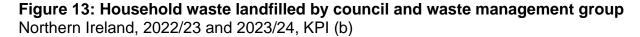
Figure 12: Waste sent to landfill Northern Ireland, 2006/07 to 2023/24, KPIs (b) and (f)

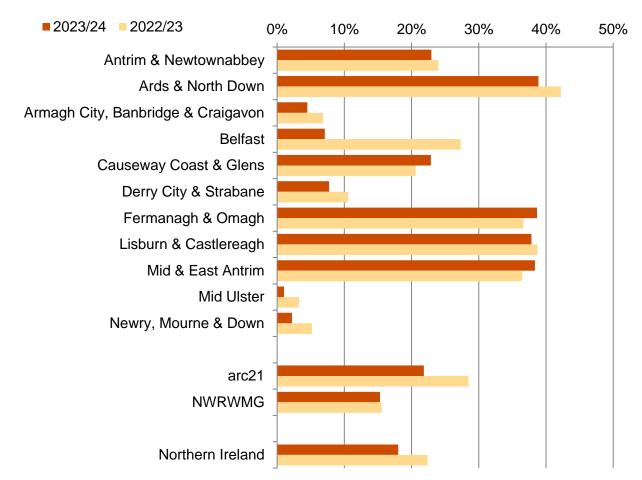


The long-term trend has seen the household waste landfill rate fall from 72.3 per cent in 2006/07 to a low of 18.0 per cent in 2023/24.

Increasing energy recovery rates, a tax on landfill and the statutory requirement for all councils in Northern Ireland to provide households with a container for food to enable its separate collection have all contributed to the long-term reduction in landfill rates. Material, mainly from residual waste treatment, can be sent for energy recovery in the form of refuse derived fuel (RDF) which diverts it from landfill.

Landfill Tax for household waste continues to be the main driver for local authorities to reduce landfill. Other considerations include a limit on the amount of biodegradable Waste as measured by KPI (g). Generating energy from waste by incineration is preferable to landfill, although recycling and reuse are preferable to both.





Eight councils recorded a decrease in their household landfill rate compared to last year with Belfast who engaged a new contractor within the reporting year recording the largest decrease of 20.2 percentage points. The household landfill rate increased in Causeway Coast & Glens, Fermanagh & Omagh and Mid & East Antrim by 2.3, 2.0 and 1.9 percentage points respectively.

Mid Ulster recorded the lowest household landfill rate at 1.0 per cent while Ards & North Down recorded the highest household landfill rate at 38.9 per cent.

The NWRWMG had a household landfill rate of 15.3 per cent, 2.7 percentage points lower than the Northern Ireland rate. Arc21's household landfill rate was higher than the Northern Ireland rate at 21.8 per cent. However, the landfill rate for Arc21 decreased 6.6 percentage points compared to 2022/23.

This data and more information including collection method can be found in the data tables appendix. Tables 3 and 4 cover all waste collected and Tables 16 and 17 cover household waste. The data are also available from the time series dataset.

Biodegradable waste to landfill

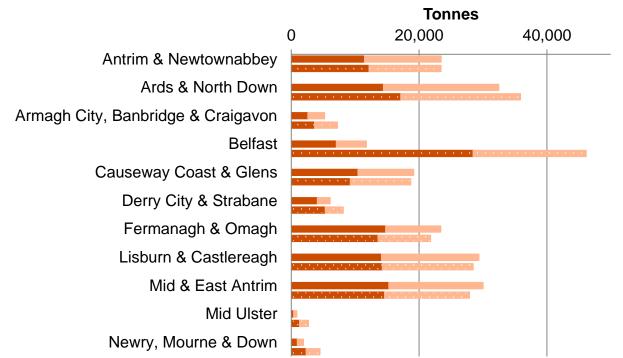
The Landfill Allowance Scheme (NI) Regulations 2004 (as amended) placed a statutory responsibility on councils, in each scheme year, to landfill no more than the quantity of biodegradable waste for which they had allowances. The scheme concluded at the end of the 2019/20 financial year, however the continued monitoring of biodegradable waste is required for existing target commitments which specify that it must be reduced to 35 per cent of the total amount (by weight) of biodegradable municipal waste produced in 1995.

Northern Ireland's councils sent 95,425 tonnes of biodegradable waste to landfill during 2023/24, which was 51.9 per cent of all waste sent to landfill. During the previous year, 121,925 tonnes of biodegradable waste was sent to landfill, which was 54.2 per cent of all waste sent to landfill.

Figure 14 displays the tonnages of biodegradable and non-biodegradable waste sent to landfill by each council, comparing them with other councils and to the same quarter last year.

Figure 14: Biodegradable and non-biodegradable waste to landfill by council Northern Ireland, 2023/24,





There is considerable variation between councils in the quantities of biodegradable waste sent to landfill, as well as the proportion of biodegradable waste in total landfill. In Derry City & Strabane and Fermanagh & Omagh over 60 per cent of all waste sent to landfill was biodegradable, whilst in Mid Ulster 41.2 per cent of all waste sent to landfill was biodegradable.

This data can be found in Table 21 of the data tables appendix and in the <u>time series</u> dataset.

Northern Ireland Key Performance Indicators 2023/24

Key Performance Indicators (KPIs) are a set of measures used to gauge performance in terms of meeting waste strategy targets. They were originally defined in the Environment and Heritage Service (now the Northern Ireland Environment Agency) municipal waste data monitoring and reporting: interim guidelines, published in March 2003.

The table below has been included to help users find a specific KPI value or location in the report or data tables. Previously used key performance indicators KPIs (a) and (e) have been modified, in line with the rest of the UK, to include waste sent for preparing for reuse, and relabelled as KPI (a2) and (e2).

KPI	Performance during 2023/24	Section in report and Appendix Table
a2	51.1 per cent of household waste sent for recycling (including composting and preparing for reuse)	Recycling (pages 9-13) Data table 17a
b	18.0 per cent of household waste landfilled	Landfill (pages 16-18) Data table 17b
e2	50.5 per cent of waste sent for recycling (including composting and preparing for reuse)	Recycling (pages 9-13) Data table 4a
f	18.4 per cent of waste landfilled	Landfill (pages 16-18) Data table 4b
g	95,425 tonnes of biodegradable waste landfilled	Landfill (pages 16-18) Data table 21a
h	1,118 kg of household waste generated per household	Waste arisings (pages 5-8) Data table 18
j	1,000,681 tonnes of waste generated	Waste arisings (pages 5-8) Data table 1
m	See Tables 22i and 22ii for capture rates by primary waste category	Data tables 22i and 22ii
n	3.0 per cent increase in waste generated	Waste arisings (pages 5-8) Data table 2
p	458 kilogrammes of household waste generated per capita	Waste arisings (pages 5-8) Data table 18

The fully validated figures that are published in the annual report have undergone checks by the Northern Ireland Environment Agency (NIEA) and further validation by Statistics and Analytical Services Branch (SASB) in the Department of Agriculture, Environment and Rural Affairs (DAERA). The annual validation acts as a check that all issues raised at the quarterly validation stage have been addressed. Additional validation checks incorporated later in the working year are then also applied backwards to all quarters in the reporting year via the annual validation.

The table below outlines the differences between finalised data in this annual report and the provisional twelve-month rolling figures and time series dataset for April 2023 to March 2024 presented in the data tables for the <u>January to March 2024 quarterly report</u>. (Data tables - Table 18)

Comparison of provisional and final figures for 2023/24 key performance indicators

KPI	Definition	2023/24 provisional	2023/24 finalised	difference
a2	Percentage of household waste sent for recycling (including composting and preparing for reuse)	51.1 per cent	51.1 per cent	0.0 percentage points
b	Percentage of household waste sent to landfill	18.0 per cent	18.0 per cent	0.0 percentage points
e2	Percentage of waste sent for recycling (including composting and preparing for reuse)	50.6 per cent	50.5 per cent	-0.1 percentage points
f	Percentage of waste landfilled	18.4 per cent	18.4 per cent	0.0 percentage points
g	Reported biodegradable waste sent to landfill	95,504	95,425	-79 tonnes (-0.08 per cent)
h	Annual household waste collected per household	1,117	1,118	1.0 kg (0.09 per cent)
j	Waste arisings	999,913	1,000,681	768 tonnes (0.08 per cent)
m	Capture rates		22i and 22ii fo imary waste o	or capture rates by category
n	Waste arisings growth rate	2.9 per cent	3.0 per cent	0.1 percentage points
p	Annual household waste collected per capita	458	458	0.4 kg per capita (0.09 per cent)

The differences between provisional and final figures are small but arise due to the additional validations carried out before the finalisation of this annual publication.

Progress against targets

Data contained in this release provide an indication of the progress towards achieving waste strategy targets. They allow for the assessment of the performance of the councils and waste management groups in Northern Ireland in managing waste arisings, recycling, composting and landfill.

Overview of progress against targets

Indicator	Source	Progress/ Outcome
To achieve a recycling rate of 45 per cent (including preparing for re-use) of household waste by 2015	Targets 1, 2 & 3 on p39 of the revised Northern Ireland Waste Management Strategy	KPI (a2) Target first met in 2017/18 - 48.1 per cent Latest figures 2023/24 - 51.1 per cent
To achieve a recycling rate of 50 per cent (including preparing for re-use) of household waste by 2020	As above	KPI (a2) Target first met in 2018/19 – 50.0 per cent Latest figures 2023/24 – 51.1 per cent
To achieve a recycling rate of 60 per cent (including preparing for re-use) of LACMW by 2020	As above	KPI (e2) Progress in 2023/24 – 50.5 per cent

Delivering Resource Efficiency - The Northern Ireland Waste Management Strategy 2013 has now formally concluded with its <u>Closure Report</u> published in June 2022.

Following the publication of the Closure Report DAERA are currently in the process of developing a new Waste Management Strategy.

Waste management strategy | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

Appendix 1: User Guidance

This statistical release is part of a regular data series presenting finalised information on local authority collected municipal waste managed in Northern Ireland.

Description of data

Local authority collected municipal waste (LACMW) data in Northern Ireland. This is municipal waste which is collected under arrangements made by a district council.

Main Uses of Data

Data contained in this release are published primarily to provide an indication of the progress towards achieving waste strategy targets. They allow for the assessment of the performance of the councils and waste management groups in Northern Ireland in managing waste arisings, recycling, composting and landfill. Targets are set for an annual period and performance against targets is considered in the Progress against targets section.

The revised Northern Ireland Waste Management Strategy sets out targets for the management of local authority collected municipal waste.

- To achieve a recycling rate of 45 per cent (including preparing for re-use) of household waste by 2015.
- To achieve a recycling rate of 50 per cent (including preparing for re-use) of household waste by 2020.
- Proposals to achieve a recycling rate of 60 per cent (including preparing for re-use) of LACMW by 2020.

https://www.daerani.gov.uk/articles/waste-managementstrategy

The Programme for Government Framework 2016-2021 contained the percentage of household waste that is reused, recycled or composted as a measure for indicator 36 under outcome 2: we live and work sustainably, protecting the environment. It is also proposed as a population indicator in the next Programme for Government Framework.

The Local Government (Performance Indicators and Standards) Order (Northern Ireland) 2015 came into operation on 28 September 2015. It contains three waste management indicators which correspond to KPIs (a2), (g) and (j) in this publication.

The Waste Framework Directive statutory target requires member states to recycle 50 per cent of waste from households by 2020.

The data are also used to assess performance against the Landfill Directive targets.

http://www.ciwm.co.uk/ciwm/knowledge/landfill-directive.aspx

This annual report provides final validated information on several key performance indicators (KPIs) used to assess progress towards achieving local authority collected municipal waste targets.

The waste data may help to inform particular lifestyle choices of the public, specifically decisions about how to treat their waste. This information feeds into Northern Ireland specific and UK wide research projects and articles carried out and published by Waste and Resource Action Programme (WRAP) – see the following web resources for more information:

https://www.recyclenow.com/ni http://www.wrap.org.uk/ http://laportal.wrap.org.uk/

These projects are funded by each of the governments within the UK. The results of research by WRAP assist governments to devise strategies to deal with issues such as using resources sustainably, helping people to recycle more and to waste less

both at home and at work, offering economic as well as environmental benefits.

Additionally, waste management information is used to inform the media, special interest groups such as the Chartered Institute of Waste Management (CIWM) which is the professional body representing waste and resource professionals, academics, for example those who would have an interest and/or involvement in the WRAP research mentioned above, and by DAERA to respond to parliamentary / assembly questions and ad hoc queries from the public.

The NISRA Data Portal provides access to waste information with the aim of making it available to as wide an audience as possible by providing interactive tables and charts that enable the statistics to be interpreted conveniently.

https://data.nisra.gov.uk/

Local Government Reorganisation

The 26 councils covered by previous reports were reorganised into 11 new councils from 1 April 2015. Prior to this, we consulted with users of the report, the proposed changes and summary of responses are available on the Statistics and Analytical Services Branch (SASB) website https://www.daera-ni.gov.uk/consultations/proposed-changes-northern-ireland-local-authority-collected-municipal-waste-management-statistics

At that stage the opportunity was also taken to update the report using feedback from NISRA's peer review group.

Data Developments

Key Performance Indicators (a) and (e) Prior to 2015/16, Northern Ireland recycling KPIs did not include waste sent for preparing for reuse, unlike the other UK devolved administrations. Waste sent

for preparing for reuse has been added to the calculations of these KPIs and they have been renamed KPI (a2) and KPI (e2). This change has been backdated to include data from 2012/13 onwards and allows comparisons across time to be made for these KPIs.

The difference this makes to the quantity of waste recycled is small. During 2023/24 this change added 2,514 tonnes of waste sent for preparing for reuse to the recycling total. This added approximately 0.3 percentage points to the KPI (a) and KPI (e) rates.

These measures are now more consistent with the rest of the UK and more consistent with the definition of the targets in the Waste Management Strategy 2020 and the Local Government (Performance Indicators and Standards) Order (NI) 2015, which include waste sent for preparing for reuse.

Waste from households recycling rate In Northern Ireland, the household recycling rate is based on 'household waste' as defined in the Waste and Contaminated Land (NI) Order 1997 (the 1997 Order) and Schedule to the Controlled Waste and Duty of Care Regulations (NI) 2013. The 'waste from households' recycling rate was introduced for statistical purposes to provide a harmonised UK indicator with a comparable calculation in each of the four UK countries.

This 'waste from households' measure has been added to the report and data tables to enable UK comparisons. However the main focus of this report is still the previous 'household waste' definition because it is the measure most directly related to current Northern Ireland policy targets. There are targets in the revised Waste Management Strategy and the Local Government (Performance Indicators and Standards) Order (NI) 2015 that reference the prior 'household waste' definition.

There is a difference between 'household waste' and 'waste from households'. The latter has a generally narrower definition than the former. There are a number of sources of waste that were considered under 'household waste' that are not considered by 'waste from households', for example waste from street recycling bins and street cleaning. More information is available from the 'waste from households' calculation guidance on the WDF website.

http://www.wastedataflow.org/documents/guidancenotes/NorthernIreland/OtherGuidanceNotes/WfHrecyclingguidanceNlv2.pdf

Analysis using 2023/24 data has shown that the 'waste from households' rate is 0.9 percentage points lower than the 'household waste' recycling rate at the Northern Ireland level. However, the difference between these rates vary across councils, with the waste from households being between 0.2 percentage points higher and 3.4 percentage points lower than the household waste recycling rate. The time series file allows the difference in these rates to be compared over quarters and across councils.

Data Sources

Waste Management Data

The information presented in this report is taken from WasteDataFlow (WDF), a web based system for local authority collected municipal waste reporting by UK local authorities to central government. The data are based on returns made to WDF (relating to approximately 40 questions on local authority collected municipal waste management) by councils, within two months of the end of each quarter.

It is increasingly rare that residual waste may still be disposed of directly to landfill. Waste is collected by the councils directly from the kerbside and some civic amenity sites; third parties under contract to the council also collect from the remaining civic amenity sites and almost all of the bring banks. Some larger councils use intermediate bulking up stations where the waste is weighed both coming into and leaving the transfer station. In all cases the waste is weighed on arrival at treatment sites for recovery e.g. Material Recovery Facilities (MRFs) and/or disposal e.g. landfill sites.

MRFs, which sort the co-mingled waste into different resource streams, almost always have more than one input source and so the weighed tonnages of each stream coming out of the plant are assigned pro-rata to each source i.e. based on their input tonnages as a percentage of all input tonnages for that period. Weighbridge dockets are generated which form the basis for statutory Waste Transfer Notes (WTNs) as the waste moves further down the treatment chain/onto reprocessors. These WTNs and/or internal reports (which also form the basis for invoices) are then sent to the council on a monthly basis. These are summarised on a quarterly basis and organised into the relevant WDF questions/categories and finally input by hand into the WDF web portal. Data providers (councils in Northern Ireland) are supplied with technical guidance documents outlining the methodologies that should be used in the collection, reporting and validation of the data returns. These documents can be accessed on the WDF website. www.wastedataflow.org/htm/datasets.asp x#NorthernIrelandGuidance

Population Data

Population data used to calculate KPI (p), household waste arisings per capita, was sourced from the 2022 Mid Year Population Estimates produced by NISRA and are the most up to date available at the time of publication.

Household Data

Household data used to calculate KPI (h), household waste arisings per household, are based on the Land and Property

Services (LPS) housing stock from April 2024. Note these household figures do not include caravans. An adjustment is made to account for the estimated number of vacant properties. A council-specific occupancy rate was calculated from 2021 Census data and is applied to the LPS data. The datasets can be accessed from the LPS website. https://www.finance-ni.gov.uk/topics/statistics-and-research/housing-stock-statistics

https://www.financeni.gov.uk/topics/statistics-andresearch/new-dwelling-statistics

Data Quality

The data are final and are based on, but supersede, previously published data from the four quarterly returns for the financial year. The data download from WDF were completed on 15 November 2024. At that time, all the district councils had made a return, giving a 100 per cent response rate.

Information contained in this report has been sourced from WasteDataFlow (WDF), which is the web based system for local authority collected municipal waste data reporting by UK local authorities to central government. The data in this report are based on returns made to WDF by district councils in Northern Ireland at the end of the 2023/24 financial year.

The fully validated figures that are published in this annual report have undergone audit by Northern Ireland Environment Agency (NIEA) and further validation by Statistics and Analytical Services Branch (SASB) beyond that which is done on a quarterly basis. The annual validation acts as a check that all issues raised at the quarterly validation stages have been addressed. Additional validation checks incorporated later in the working year are then also applied backwards to all quarters in the reporting year via the annual validation.

Strengths of Data

Data are derived from WDF with full coverage for all councils to support statutory NILAS diversion targets. As the data are derived from an administrative system, they provide a complete picture of council controlled waste activity in NI.

Validation

Various validation checks are carried out by both NIEA and SASB. Validations are conducted for each individual question, with additional global validations carried out to ensure that total tonnage of waste types is equal to the sum of the component parts. Comprehensive variance checks are employed as an integral part of the production process for all reports.

Any anomalies or discrepancies are subsequently queried with the relevant council. As WDF data can usually only be amended at council level, it is then necessary to 'reject' or release the data back to the waste management group and subsequently back to the council so that it might be corrected as appropriate.

Limitations of Data

Waste Management Data
Despite the intensive validation carried out on the data prior to publication, any administrative system involving manual data compilation will always be open to a degree of clerical error.

Unclassified waste

Unclassified waste is calculated as a residual amount of municipal waste after municipal waste sent to landfill, sent for recycling (including composting), sent for energy recovery and preparing for reuse have been accounted for, instead of being extracted directly from the WasteDataFlow system. The majority of the total unclassified tonnage can be attributed to moisture and/or gaseous losses. Small negative tonnages can arise in the unclassified column if more waste is sent for treatment in the quarter

than was actually collected as is more likely at councils operating transfer stations. Transfer stations move waste quickly but if a particular transfer occurs the day after arriving, which also happens to be the start of the next quarter, then a small inconsistency can arise.

Types of waste

There are many different forms of waste, including municipal solid waste, commercial and industrial waste, construction, demolition and excavation waste, hazardous waste, agricultural waste, and waste water and sludges. The latest report on construction, demolition and excavation waste arisings is for 2009/10:

https://www.daera-

ni.gov.uk/publications/constructiondemolition-and-excavation-wastearisings-use-and-disposal-northernireland

Following on from the UK's agreement to revise its interpretation of 'municipal waste' to include much more commercial and industrial waste than previously; it should be noted that this report, as with all previous ones, reflects local authority collected municipal waste only.

Material Recovery Facilities
MRFs usually have more than one input
source and the pro-rata assignment to
each source based on their input
tonnages can lead to a small over or
under estimation of the actual tonnage
being recovered from each individual
source.

Capture Rates

Capture rates are no longer included in the body of the report but are still available in the data tables appendix. The calculations for capture rates are based on a Compositional Study undertaken in 2017 and may not accurately reflect the current situation. However, it is the best available estimation of the proportions of the primary waste categories contained within kerbside residual waste. Levels of

uncertainty around the results of the Compositional Study are discussed in the full report.

The accuracy of these estimates is expected to decrease over time as household recycling habits continue to change.

Waste Crime

Waste crime is the unauthorised management of waste, including illegal dumping. It can be difficult to quantify the impact of such activity upon these official figures as it is not always possible to determine the source, date and tonnage of illegally deposited waste. Where possible the extent and any implications of such activity will be communicated to users.

Energy Recovery via Anaerobic Digestion The tonnages relating to energy recovery from material undergoing anaerobic digestion are still accounted for under the recycling section since the vast majority of the tonnage of waste undergoing this process eventually ends up as a compost (once the methane generated from the anaerobic digestion process has been collected).

Rounding and Summing

It should be noted that in some instances totals may not add up due to rounding. If tonnages work out to be less than 0.5 tonnes, they will be rounded to zero.

On occasion percentages work out to be less than 0.1 per cent or more than 99.9 per cent. Users should be aware that in such cases, the percentage is rounded to zero or 100 per cent respectively.

Whilst tonnages may be summed over councils and/or Waste Management Groups to give totals for higher level geographies, such totals may suffer from rounding errors when compared with any given totals.

However where fractions or proportions, such as recycling rates, waste arisings per capita etc are stated for councils or waste management groups, these indicators cannot be simply added or averaged to produce a rate for a higher level geography. Such information is often available in the data tables appendix, or otherwise may be available upon request.

Data for Northern Ireland and Waste Management Groups are only added to charts with rates and percentages to avoid distorting the scale of the charts.

Notation and Terminology

Please see the glossary (appendix 2) for clarification of key terms.

Guidance on using data

All figures in the report and the accompanying Excel tables are annual figures and refer to the stated period. These annual figures are the final, validated figures for the year and supersede those figures published in the quarterly reports for the period. Please note that any comparisons with prior year use the final validated figures as published in the annual report for that period. Very small increases or decreases in figures (<0.5 per cent or <0.5 percentage points) are not highlighted in the commentary and should be interpreted with care.

Waste Management information elsewhere in the United Kingdom and Europe

While it is our intention to direct users to waste management information elsewhere in the UK and Europe, users should be aware that local authority collected municipal waste statistics in other administrations are not always measured in a comparable manner to those in Northern Ireland. Details of waste management data published

elsewhere in the UK and Europe can be found at the following links.

England

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

Scotland

http://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/

Wales

https://gov.wales/local-authoritymunicipal-waste-management

Ireland

http://www.epa.ie/waste/municipal/

European Union Member States http://ec.europa.eu/eurostat/statistics-explained/index.php/Municipal_waste_statistics

The basis of the data collection across the UK using WDF is broadly consistent, however there are some minor definitional differences such as Northern Ireland recycling KPIs do include material used as 'backfill' (using suitable waste material to refill an excavation instead of non-waste material) which is not directly comparable with the revised Waste Framework Directive recycling measurements.

The meetings of the WasteDataFlow Operational Group ensure a conscious effort to share waste management developments on a UK-wide basis with Northern Ireland representation on this group.

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Appendix 2: Glossary

Term	Explanation
Biodegradable waste	Any waste that is capable of undergoing anaerobic decomposition, such as food and garden waste, and paper and paperboard.
Bring site	An unmanned site with a container or a collection of containers for depositing recyclable waste.
Capture rate for household kerbside collected waste	The amount of 'available' material that is actually being collected for recycling through household kerbside collection schemes.
Civic amenity site	A manned site for depositing waste.
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 enrich the nutrient content of the soil.
Composting rate	The percentage of waste sent for composting. It excludes waste collected for composting that was rejected at collection or at the gate of the reprocessor.
Dry recycling	The recycling of dry materials such as paper, card, cans, plastic bottles, mixed plastic, glass.
Dry recycling rate	The percentage of waste sent for recycling. It excludes waste collected for recycling that was rejected at collection, during sorting or at the gate of the recycling reprocessor. It includes residual waste which was diverted for recycling but excludes waste sent for preparation for reuse.
Energy recovery rate	The percentage of waste sent for energy recovery. It includes mixed residual and specific sources components.
Household waste	Includes materials (except soil, rubble and plasterboard) collected directly from households (e.g. kerbside collections) or indirectly (e.g. bring sites, civic amenity sites, collected by private and voluntary organisations not included elsewhere or street sweepings).
Kerbside	A regular collection of waste from premises.
Key Performance Indicators (KPIs)	A set of measures used to gauge performance in terms of meeting waste strategy targets.
LAC	Local Authority Collected, as in Waste.
Landfill sites	Any areas of land in which waste is deposited. Landfill sites are often located in disused mines or quarries. In areas where they are limited or no ready-made voids exist, the practice of landraising is sometimes carried out, where waste is deposited above ground and the landscape is contoured.
Local authority collected	Waste which is collected under arrangements made by a

Term	Explanation
Mixed dry recyclables	Waste streams intended for recycling found together with each other but separately from other waste.
Mixed residual waste sent for energy recovery	Combustible residual waste collected from the kerbside and civic amenity sites and processed into refuse derived fuel at material recovery facilities.
NILAS	Northern Ireland Landfill Allowance Scheme
Non household waste	Asbestos, beach cleansing, fly-tipped materials, gully emptyings, commercial and industrial, construction and demolition, grounds waste, highways waste, other collected waste and other.
Other household waste	Healthcare waste, bulky waste, street cleaning and other household.
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.
Refuse Derived Fuel (RDF)	Consists largely of organic components of municipal waste (such as plastics and biodegradable waste). This can then be used in a variety of ways to generate electricity, most commonly as an additional fuel used with coal in power stations or in cement kilns.
Regular residual household waste	Household regular kerbside collection.
Residual waste	Waste that is not sent for preparing for reuse, sent for recycling or composting.
Specific streams e.g. wood	Used in the context of Waste sent for energy recovery. It is mostly wood but also contains furniture, carpets and mattresses, mostly collected from civic amenity sites.
Waste arisings	The amount of waste collected in a given locality over a period of time.
Waste collected for disposal to landfill	Collected for disposal is residual waste that has not been sorted to separate out recyclable material from other waste before being presented to the Council for collection at various locations.
Waste from households	Not the same as 'household waste'. This is a narrower definition and includes material (except soil, rubble and plasterboard) collected only from households (e.g. kerbside collection, bring sites, civic amenity sites or community skips managed by councils).

Term	Explanation
Waste sent to landfill	The amount of waste sent to landfill. Excludes residual waste which was diverted for energy recovery, recycling or composting. Includes household waste collected for energy recovery, recycling or composting which was diverted to landfill.
Waste Transfer Note (WTN)	A note which must be created for any transfer of controlled waste. The exception to this is householders, who are not required to produce transfer notes.
WasteDataFlow	The web based system for local authority collected municipal waste data reporting by UK local authorities to government (www.wastedataflow.org).
Recycled material types	
Compostable (excluding wood)	Green waste only, green garden waste only, mixed garden and food waste, waste food only, other compostable waste (excluding wood).
Construction, Demolition and Excavation	Plasterboard, rubble, soil and aggregates.
Electrical Goods	Large and small domestic appliances, TVs and monitors, fluorescent tubes and other light bulbs, fridges and freezers, auto batteries and post consumer batteries.
Glass	Brown, clear, green and mixed glass.
Metal	Aluminium, mixed and steel cans, aluminium foil, bicycles, aerosols, gas bottles, fire extinguishers and other scrap metal. Metal from Incinerator Bottom Ash (IBA).
Paper and Card	Books, card, mixed paper and card, paper, yellow pages and cardboard beverage packaging.
Plastics	PET(1), HDPE(2), PVC(3), LDPE(4), PP(5), PS(6), other plastics(7), mixed plastic bottles, and plastics.
Textiles	Textiles and footwear, footwear only, textiles only and carpets.
Unclassified	Derived category including all other recycled material collected not included in the main categories.
WEEE (Waste Electrical and Electronic Equipment)	As electrical goods above but excluding auto batteries and post consumer batteries.
Wood	Wood, chipboard and MDF, composite wood materials and wood for composting.

Appendix 3: List of Acronyms

This is a list of commonly used acronyms in this report.

arc21 Regional waste management group in Northern Ireland

BLACMW Biodegradable Local Authority Collected Municipal Waste

CIWM Chartered Institution of Wastes Management

DAERA Department of Agriculture, Environment and Rural Affairs

EC European Commission

EU European Union

KPI Key Performance Indicator LAC Local Authority Collected

LACMW Local Authority Collected Municipal Waste

LPS Land and Property Services

MDR Mixed Dry Recyclables

MRF Materials Recovery Facility

NI Northern Ireland

NIEA Northern Ireland Environment Agency

NILAS Northern Ireland Landfill Allowance Scheme

NISRA Northern Ireland Statistics and Research Agency NWRWMG North West Regional Waste Management Group

RDF Refuse Derived Fuel

SASB Statistics and Analytical Services Branch, DAERA

UK United Kingdom WDF WasteDataFlow

WEEE Waste Electrical and Electronic Equipment WRAP Waste and Resource Action Programme

Appendix 4: Accredited Official Statistics

<u>Accredited Official Statistics</u> are official statistics that have been independently reviewed by the Office for Statistics Regulation (OSR) and confirmed to comply with the standards of trustworthiness, quality and value in the <u>Code of Practice for Statistics</u>. Producers of accredited official statistics² are legally required to ensure they maintain compliance with the Code.

These accredited official statistics were independently reviewed by OSR in September 2013 in the <u>Assessment Report 263 Statistics on the Environment and Waste</u> <u>Management in Northern Ireland</u>, with <u>accreditation confirmed</u> in January 2014. They comply with the standards of trustworthiness, quality and value in the Code of Practice and should be labelled National Statistics (or 'accredited official statistics').

In October 2020, a <u>compliance check</u> was completed for the waste statistics produced by each of the UK regions and confirmed that the designation (or 'accredited official statistics' labelling) should continue. The trustworthiness, quality and value of the statistics, including the coherence of the data source, methods and quality assurance (QA) arrangements, and the presentation of the statistics were reviewed with a final outcome that the statistics can continue to be designated as National Statistics (or 'accredited official statistics').

Our <u>Statistics Charter</u> provides further details of how we apply the principles and practices of the Code in the production and publication of our official statistics.

Our statistical practice is regulated by OSR. They set the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to.

You are welcome to contact us directly with any comments about how we meet these standards.

Alternatively, you can contact OSR by emailing <u>regulation@statistics.gov.uk</u> or via the OSR website.

² Accredited Official Statistics are called National Statistics in the Statistics and Registration Service Act 2007

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An Roinn

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