

The composition of household waste at the kerbside in 2021-23 (Zero Waste Scotland)

To: All Chief Executives, Main Contacts and APSE Contacts in Scotland. For information only to England, Northern Ireland and Wales

1 Executive summary

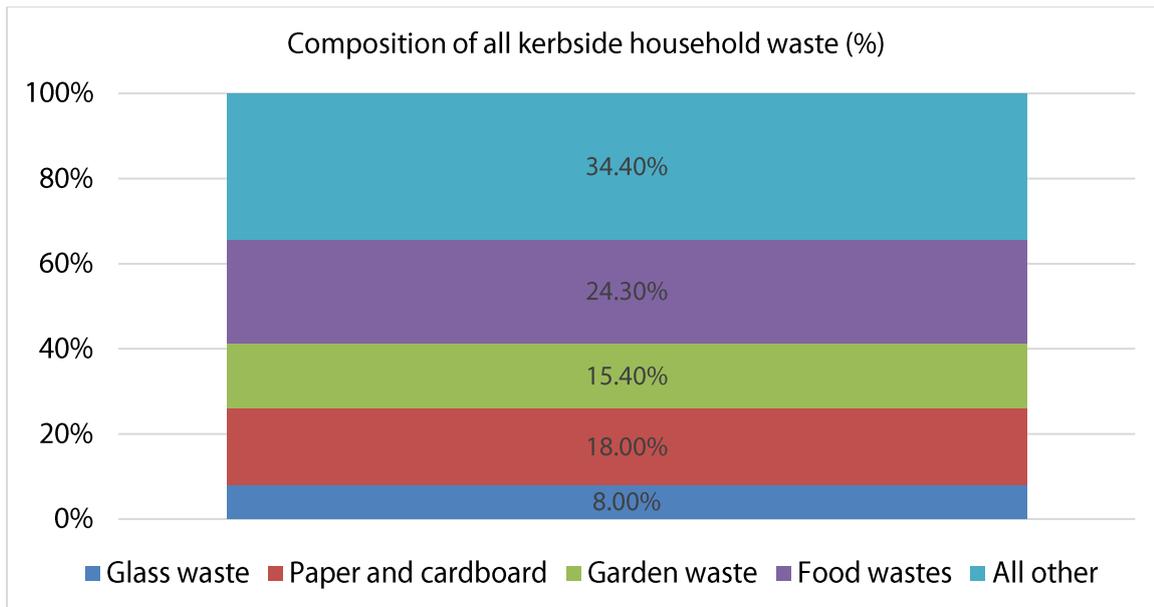
Zero Waste Scotland have released a new report providing estimates for the composition of household waste collected at the kerbside in Scotland in 2021-23. The full report can be accessed on the [Zero Waste Scotland website](#) alongside the [methodology overview](#).

The key findings from the compositional analysis are also available as an Excel dataset which can be accessed by [clicking here](#).

2 Key figures and findings

Overall

- Scottish households put 1.8 million tonnes of material into kerbside collections per annum; food waste, paper and cardboard, garden waste and glass waste made up nearly 1.2 million tonnes or approximately 66% of the total; food waste made up approximately 440,000 tonnes (over 24% of the total).
- Scottish households correctly recycled just under 650,000 tonnes per annum of common waste types (36% of all kerbside waste collected).
- Recycling avoided 510,000 tonnes of CO₂e emissions and £63 million in landfill costs.
- Food waste is the most significant component of residual waste and increased recycling of this would have significant impacts on reducing carbon emissions.
- Contamination within recycling is still a challenge for local authorities to manage.



Residual bins

- Scottish households put 1.1 million tonnes of material into residual waste bins per annum; approximately 550,000 tonnes (52%) of residual waste is made up of waste types that can typically be recycled.
- Approximately 650,000 tonnes (61%) of the estimated 1.1 million tonnes of residual waste is biodegradable.
- The overall quantity of residual waste collected reduced by approximately 64,000 tonnes (6%) between the original 2013-15 report and 2021-23; paper saw the largest reduction of approximately 32,000 tonnes.
- Analysis from sampling fifteen authorities showed only 24% of kerbside food waste was found in the food recycling container compared to 71% of glass and 88% of garden waste in the correct bins.
- Composition analysis of kerbside residual household waste found the contents of residual bins broken down as: all other – dense plastics, absorbent hygiene products, glass waste, textiles, garden waste, wood and electrical items (36.5%), food wastes (30.9%), other (12.2%), paper & cardboard (12.7%), and plastic films and flexibles (7.7%).

Recycling bins

- Materials placed in the wrong container and non-recyclable wastes placed in recycling bins made up an average of 20% of overall recycling containers for dry mixed services and 17% for twin stream recycling.

Food waste

- Food waste made up the largest single waste type at just under 441,000 tonnes per annum (24% of the total).
- Households produced just under an average of 175 kilogrammes of food waste each year or approximately 81 kilogrammes per capita.

Paper and cardboard

- Paper and cardboard combined is the second largest waste type at approximately 330,000 tonnes per annum (18% of the total).
- This is split into:
 - newspapers and magazines (61,000 tonnes)
 - non-recyclable paper (76,000 tonnes)
 - other recyclable paper (22,000 tonnes)
 - thin card packaging (66,000 tonnes)
 - board packaging (63,000 tonnes)
 - beverage cartons (7,900 tonnes)
 - other paper material (11,000 tonnes)
 - other cardboard material (20,000 tonnes)
- A focus on paper and cardboard will be important in efforts to reduce the biodegradable content of kerbside residual waste.

Glass

- Glass makes up just under 145,000 tonnes (8%) of total kerbside waste per annum, it was estimated that households produced just over an average of 57 kilogrammes of glass each year or approximately 26 kilogrammes per capita.

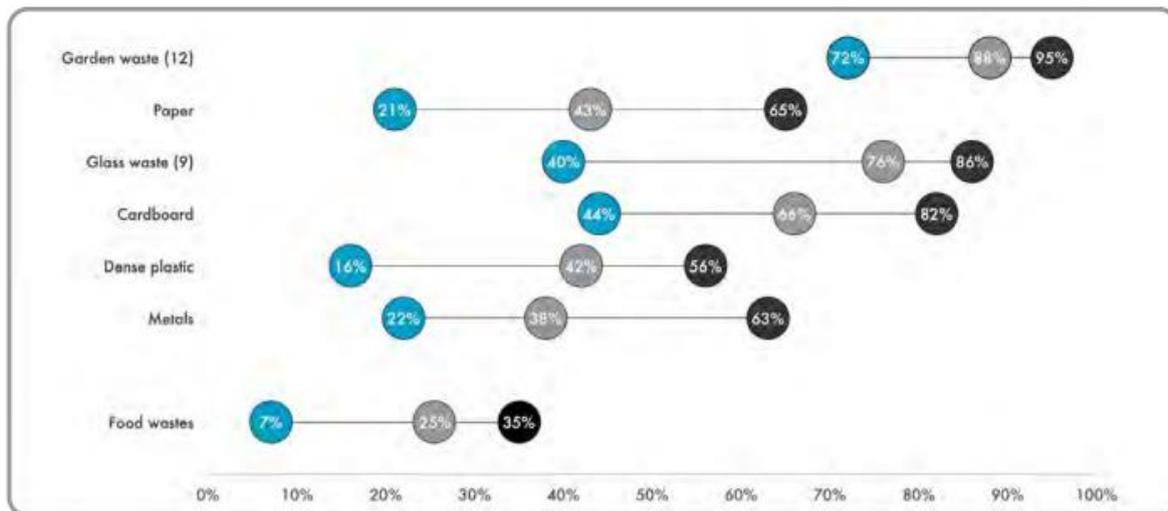
Other waste streams

- There are nine other broad waste types that comprise of approximately 622,000 tonnes per annum (34%) and consist of:
 - Dense plastic (130,000 tonnes)
 - Plastic films (91,000 tonnes)
 - Absorbent hygiene products (72,000 tonnes)
 - Other (140,000 tonnes)
 - Metal (67,000 tonnes)
 - Textiles (58,000 tonnes)
 - Unclassified (32,000 tonnes)

- Wood (18,000 tonnes)
- Electrical and electronic items (14,000 tonnes)

Recycling at the kerbside – 15 local authorities data

- There is a wide variation in the level of recycling presented in the correct container at the kerbside, for example while the average rate for glass was 71%, the minimum was 40% and maximum was 86%.
- The graph below shows the minimum in blue, the average in grey and the maximum in black.



3 APSE Comment

APSE encourages our members to engage with the contents of the report and the accompanying methodology overview and Excel dataset.

APSE Scotland’s Waste and Recycling advisory group is free to attend for members, [click here](#) for more information on previous meetings. [APSE’s Fleet, Waste and Grounds seminar 2023](#) featured a number of presentations on local authority best practice in waste; [click here](#) for information on 2024’s event.

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