

Final report

The Composition of Litter in Wales



Waste composition analysis of litter in Wales

WRAP's vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through re-use and recycling.

Find out more at www.wrapcymru.org.uk

Document reference (please use this reference when citing WRAP's work):
[WRAP, 2018, Banbury, Litter Composition in Wales, Prepared by Sarah Gray]

Author: Peter Wills and Agnieszka Chruszcz, Resource Futures



Front cover photography: Plastics Pollution

While we have taken reasonable steps to ensure this report is accurate, WRAP does not accept liability for any loss, damage, cost or expense incurred or arising from reliance on this report. Readers are responsible for assessing the accuracy and conclusions of the content of this report. Quotations and case studies have been drawn from the public domain, with permissions sought where practicable. This report does not represent endorsement of the examples used and has not been endorsed by the organisations and individuals featured within it. This material is subject to copyright. You can copy it free of charge and may use excerpts from it provided they are not used in a misleading context and you must identify the source of the material and acknowledge WRAP's copyright. You must not use this report or material from it to endorse or suggest WRAP has endorsed a commercial product or service. For more details please see WRAP's terms and conditions on our website at www.wrap.org.uk

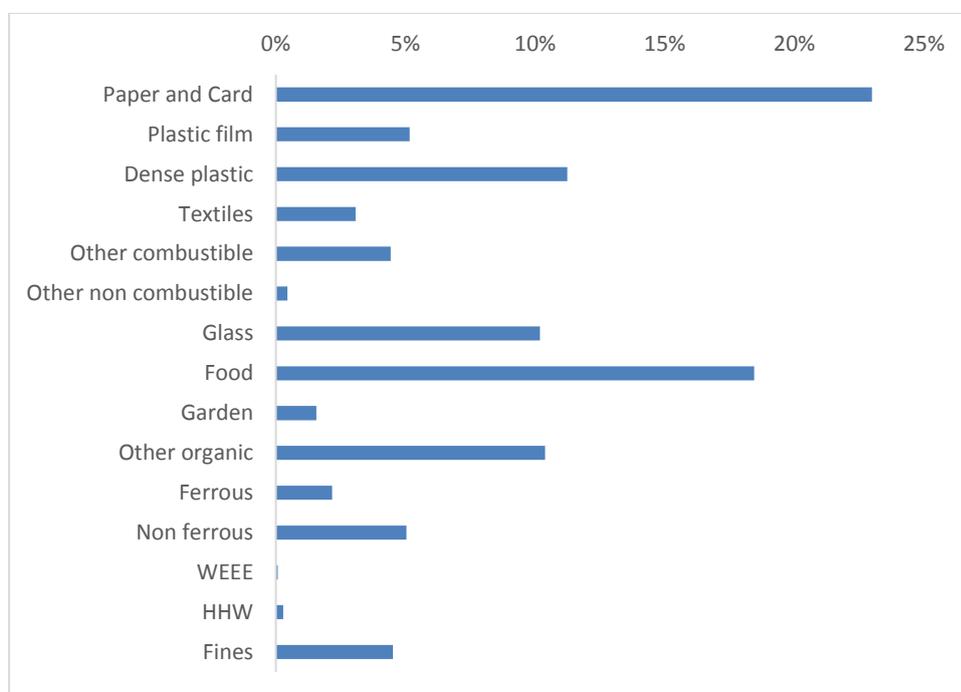
Executive summary

This waste compositional analysis project aims to measure the composition of different types of litter and estimate the total composition of this stream in Wales.

As litter is collected in a number of different ways, a variety of sources were included in the analysis, including: litter bins, recycling on the go bins and litter picked up by street cleansing teams via carts and manual sweeping.

Four local authorities were recruited to take part in the analysis: Rhondda Cynon Taf, Cardiff, Ceredigion and Conwy. These authorities were selected to represent the different types of demographics (urban, rural and valley) and are spread across Wales.

The overall composition of picked and litter bin waste in Wales is shown in the figure below.



The most prominent category by weight found within the litter waste was paper and card, which accounted for 23% of litter. Food waste accounted for 18.5% of litter. Plastics accounted for 16.4%, by weight, most of which was dense plastics including plastic bottles, plastic tubs and trays, and other dense plastic.

Fine material which includes traditionally targeted litter items such as chewing gum and cigarette litter accounted for less than 5% of the material. Similarly, items such as plastic bags (1%) and coffee cups (2.3%) did not account for large quantities of the waste by weight.

The composition differed between litter bins and litter picked manually with the latter including less food waste and more paper and card and packaging. However, the recycling bins composition did not differ from the residual litter bins.

Contents

1.0	Introduction	4
1.1	Aims of the project	4
2.0	Methodology	4
2.1	Sample authorities	4
2.2	Samples	4
2.3	Sort method and waste categorisation	5
2.3.1	Takeaway waste	5
2.4	Data analysis	6
2.5	Deviation from original method	6
2.6	Samples gathered.....	6
3.0	Results	7
3.1	Overall average composition.....	7
3.1.1	Litter bin residual composition.....	9
3.1.2	Litter pick residual composition	10
3.1.3	Recycling bin composition	12
3.1.4	Food waste.....	13
3.1.5	Mixed dry recyclables	14
3.1.6	Fines waste composition.....	14
3.1.7	Anecdotal observations from composition sorting.....	15
4.0	Key findings	15
4.1.1	Further research.....	16
Appendix 1: Category List		17

Acknowledgements

We would like to thank the local authority officers that have enabled the study to take place in their authority as well as the staff on the sites where the analysis has taken place.

1.0 Introduction

1.1 Aims of the project

In 2015 Resource Futures carried out a national waste compositional analysis of municipal waste in Wales on behalf of WRAP and the Welsh Government¹. Litter was not included in the original scope of this work but it is of interest to the Welsh Government as data is required to develop policies and strategies for dealing with this material.

This project aims to measure the composition of different types of litter and estimate the total composition of this stream in Wales.

2.0 Methodology

2.1 Sample authorities

A number of authorities were approached and invited to participate in the study. Four local authorities were recruited to take part in the analysis: Rhondda Cynon Taf, Cardiff, Ceredigion and Conwy. These were selected to ensure that a variety of demographics and locations were represented within the research. They included urban, rural, suburban and valley locations.

The authorities were responsible for the collection and delivery of the litter samples to the team responsible for the work, and for providing the site for the analysis to take place.

The schedule of the work is depicted in Table 1 below.

Table 1: Sample schedule

Day	Mon 06/03/2017	Tue 07/03/17	Wed 08/03/17	Thu 09/03/17
Team 1				
Rhondda Cynon Taf				
Cardiff				
Team 2				
Ceredigion				
Conwy				

2.2 Samples

Litter is collected in a number of different ways, including:

- Litter bins
- Recycling on the go bins
- Litter picked up by street cleansing teams via carts and manual sweeping

¹ <http://www.wrap.org.uk/CompositionalAnalysisWales>

- Street sweepings collected via vehicles such as scarabs

Therefore, a variety of sources was included in the analysis. Samples of the litter from bins, litter from manual sweeping and recycling were delivered for sorting in different coloured bags or labelled, depending on the local authority included in the study. Each of the waste streams was sorted separately.

If samples were delivered from individual locations these were sorted separately and details were recorded. If the local authority was only able to deliver the samples in bulk, these were separated into batches (up to 3 per load) and sorted separately to gauge the level of variability within the waste.

2.3 Sort method and waste categorisation

The samples of waste were delivered to a team at the sorting site identified by the Local Authority. All material was positively identified during the hand sorting and categorised as per the agreed category list. The category list is available in Appendix 1.

All material was sorted straight off the table to manageable levels (items that are possible to pick up with gloves on, approximately the size of a cigarette butt). The fine material remaining on the table was weighed off as fines. Photographic evidence was taken of this material after each batch was sorted. Small representative samples (0.5kg, obtained using the cone and quarter method) of this fine material were taken for visual analysis to ascertain the quantities of materials such as cigarette butts, chewing gum, pieces of organic material or small pieces of paper. Up to three of these samples were taken from each sorted batch.

Weights were obtained for each category of material using digitally calibrated scales. All streams were sorted separately using the same category list for comparison. Counts were also taken for a selection of the categories.

A selection of bins and kerbside boxes were used to separate the material into the Level 2/Level 3 categories (the different levels of detail into which waste was sorted are also described in the appendix). Items consisting of multiple materials were classified according to the predominant material by weight (e.g. a ferrous metal chair with a plastic seat will be classified as “ferrous other”). All bags were split and all containers emptied where possible. Where the separation was not possible (e.g. unopened tinned food) the item was categorised according to the predominant material by weight. Any bags used for collection of the waste were weighed separately as “collection sacks”.

The material was weighed using calibrated, electronic scales and the weight recorded against the appropriate sub category. The data was recorded by the site manager who also monitored the quality of the sort at this point and ensured the scales were tared appropriately.

2.3.1 Takeaway waste

There are several packaging categories where takeaway food packaging was present within the litter waste. Where it was possible to identify that a piece of packaging came from a takeaway food business (e.g. logos, on the packaging) the weight was recorded

separately on the sort sheet in a box to the left of the sub-category. Only items which could be positively identified were placed within the takeaway category.

2.3.2 Food waste

Food was sorted into avoidable and unavoidable categories, depending on the nature of the material waste. Food that could have been eaten but instead was discarded was recorded as avoidable. Only items such as apple cores, banana peel, and egg shells, for example, are recorded as unavoidable.

2.4 Data analysis

The data was entered into an Excel spreadsheet and each entry was quality checked by the Project Manager. The total composition presented is based on the average composition of all samples. The litter collected in recycling bins was also included within the average composition. Due to heavy contamination, it is unlikely that the Council would have treated the recycling separately to the other litter waste. Data was also averaged by authority and sub stream. The assessment of recyclability, packaging and takeaway packaging was carried out during the data analysis.

2.5 Deviation from original method

The original method planned to sort three batches of each sample analysed. However, due to time constraints the decision was made to concentrate on capturing the composition of more samples in less batches, rather than more batches of less samples. As such, some samples were only sorted as single or double batches. This does not affect the overall composition, only the number of batches used to assess variability within the stream.

2.6 Samples gathered

The samples shown in Table 2 below were gathered by the local authorities and delivered to the waste analysis team.

Table 2: Samples achieved

Authority	Sample detail	Area	Sub Stream
Rhondda	Town centre litter clear bags (S1)	Town centre	litter (picked)
	Town centre bins green bags (S2)	Town centre	Residual (Bins)
	Suburban bins green bags (S3)	Suburban	Residual (Bins)
	Suburban litter white bags (S4)	Suburban	litter (picked)
	Suburban litter white bags (S5)	Suburban	litter (picked)
	Town centre bins green bags (S6)	Town centre	Residual (Bins)
	Suburban litter white bags (S7)	Suburban	litter (picked)
	Town centre bins green bags (S8)	Town centre	Residual (Bins)
Cardiff	Litter bins (S1)	Urban - Edge of town	Residual (Bins)
	Litter bins (S1)	Urban - Edge of town	Residual (Bins)
	Litter bins (S1)	Urban - Edge of town	Residual (Bins)
	Loose litter (S2)	Urban - Edge of town	litter (picked)

Authority	Sample detail	Area	Sub Stream
	Loose litter (S2)	Urban - Edge of town	litter (picked)
	Loose litter (S2)	Urban - Edge of town	litter (picked)
	Overnight litter (S3)	Town centre	litter (picked)
	Overnight litter (S3)	Town centre	litter (picked)
	Overnight litter (S3)	Town centre	litter (picked)
	Cardiff - East of the city (S4)	Urban	Residual (Bins)
	Cardiff - East of the city (S4)	Urban	Residual (Bins)
	Cardiff - East of the city (S4)	Urban	Residual (Bins)
	Cardiff Link tip (s5)	Urban	Bin and Pick
Ceredigion	Black - Residual Lampeter (S1)	Town and urban	Residual (Bins)
	Black - Residual Lampeter (S1)	Town and urban	Residual (Bins)
	Clear - Recycling Lampeter (S1)	Town and urban	Recycling (bins)
	Clear - Recycling Lampeter (S1)	Town and urban	Recycling (bins)
	Black - Residual Cardigan (S2)	Town and urban	Residual (Bins)
	Black - Residual Cardigan (S2)	Town and urban	Residual (Bins)
	Clear - Recycling Cardigan (S2)	Town and urban	Recycling (bins)
	Clear - Recycling Cardigan (S2)	Town and urban	Recycling (bins)
Conwy	Residual - Abergele (S1)	Town and urban	Residual (Bins)
	Residual - Abergele (S1)	Town and urban	Residual (Bins)
	Residual - Abergele (S1)	Town and urban	Residual (Bins)
	Abergele to Kimnal Bay (S2)	Suburban	Residual (Bins)
	Abergele to Kimnal Bay (S2)	Suburban	Residual (Bins)
	Rhos - Colwyn Bay (S3)	Suburban	Residual (Bins)
	Rhos - Colwyn Bay (S3)	Suburban	Residual (Bins)
	Abergele to Kimnal Bay (S4)	Suburban	Residual (Bins)
	Abergele to Kimnal Bay (S4)	Suburban	Residual (Bins)

This shows a reasonable split between different types of locations and types of litter collected. In total 21 samples were analysed, including 38 batches.

3.0 Results

3.1 Overall average composition

The overall average composition of all litter analysed over the four-day period is shown in Table 3 and Figure 1 below.

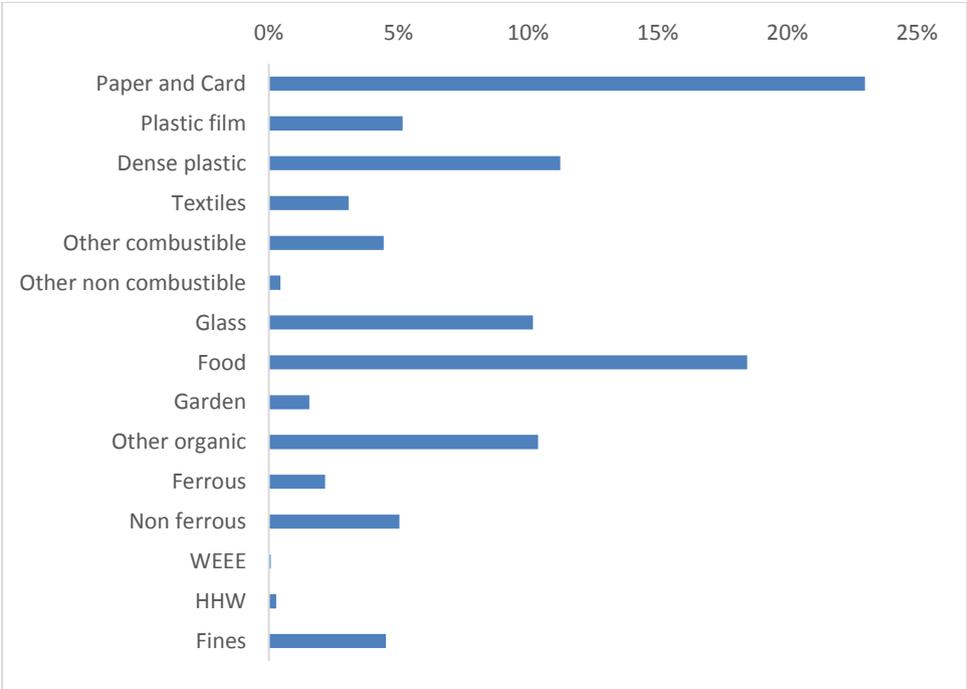
The most common category found within the litter waste was paper and card, which accounted for 23%. Much of this was potentially recyclable paper and card, for the most part consisting of newspapers and magazines, and card packaging. Coffee cups were included as a separate category in the more detailed list due to recent public interest in

this material but accounted for only 2.3% of the overall litter composition. However, this is a lightweight material and the count of all the disposable coffee cups found during the analysis was 1,251 and would account for a considerable volume.

Table 3: Overall average composition of litter in Wales

<i>Category</i>	<i>Composition % by weight</i>
<i>Paper and Card</i>	22.99%
<i>Plastic film</i>	5.16%
<i>Dense plastic</i>	11.24%
<i>Textiles</i>	3.08%
<i>Other combustible</i>	4.43%
<i>Other non-combustible</i>	0.44%
<i>Glass</i>	10.19%
<i>Food</i>	18.46%
<i>Garden</i>	1.56%
<i>Other organic</i>	10.39%
<i>Ferrous</i>	2.17%
<i>Non-ferrous</i>	5.03%
<i>WEEE</i>	0.07%
<i>HHW</i>	0.29%
<i>Fines</i>	4.51%
Total	100.00%

Figure 1: Overall average composition of litter in Wales



Plastic was also commonly occurring, particularly dense plastic (11.2%) such as plastic bottles and plastic tubs and trays. Glass accounted for 10.2% of overall composition. Another 5.2% of the materials analysed was plastic film (excluding collection sacks which

were separately weighed but are not litter). Carrier bags accounted for 1% of litter analysed overall. They were sorted into two subcategories (single use bags or bag-for-life bags), which were both weighed and counted. In total 332 single use bags and 69 bags-for-life were found. Single use carrier bags accounted for 73% of the weight of the carrier bags found.

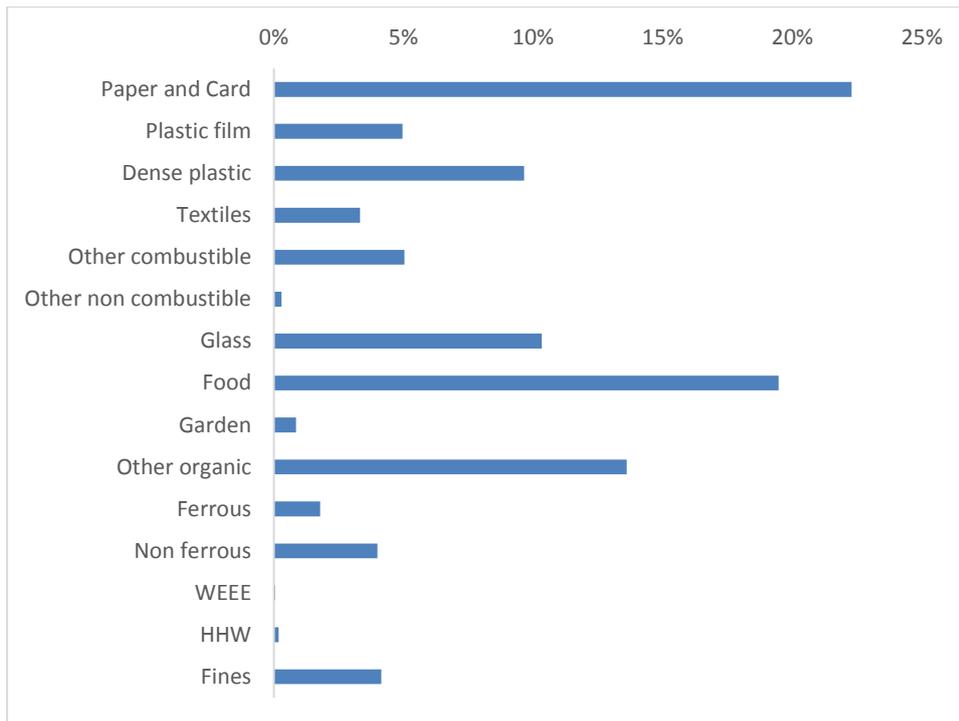
3.1.1 *Litter bin residual composition*

The overall average composition of all residual waste litter bins analysed over the four-day period is shown in Table 4 and Figure 2 below.

Table 4: Residual litter bin composition

<i>Category</i>	<i>Composition % by weight</i>
<i>Paper and Card</i>	22.29%
<i>Plastic film</i>	4.96%
<i>Dense plastic</i>	9.66%
<i>Textiles</i>	3.33%
<i>Other combustible</i>	5.03%
<i>Other non-combustible</i>	0.29%
<i>Glass</i>	10.34%
<i>Food</i>	19.47%
<i>Garden</i>	0.86%
<i>Other organic</i>	13.62%
<i>Ferrous</i>	1.79%
<i>Non-ferrous</i>	3.99%
<i>WEEE</i>	0.05%
<i>HHW</i>	0.19%
<i>Fines</i>	4.14%
Total	100.00%

Figure 2: Residual litter bin composition



The most common category found within the residual litter bin waste was paper and card (22.3%), followed by food waste (19.5%). Other organic matter comprised 13.6% of residual litter bin waste, mostly pet excrement. Glass accounted for 10.3% of litter bin waste by weight while dense plastic comprised 9.7%.

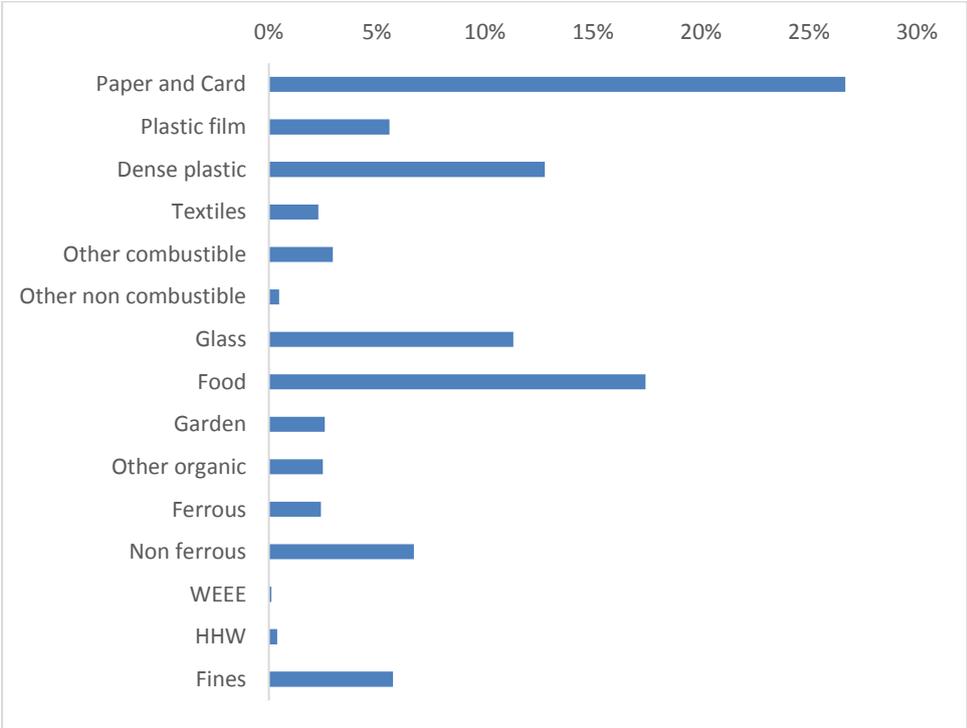
3.1.2 Litter pick residual composition

The overall average composition of all hand-picked litter analysed over the four-day period is shown in Table 5 and Figure 3 below.

Table 5: Hand-picked litter composition

<i>Category</i>	<i>Composition % by weight</i>
<i>Paper and Card</i>	26.68%
<i>Plastic film</i>	5.59%
<i>Dense plastic</i>	12.78%
<i>Textiles</i>	2.29%
<i>Other combustible</i>	2.96%
<i>Other non-combustible</i>	0.48%
<i>Glass</i>	11.31%
<i>Food</i>	17.44%
<i>Garden</i>	2.58%
<i>Other organic</i>	2.50%
<i>Ferrous</i>	2.42%
<i>Non-ferrous</i>	6.71%
<i>WEEE</i>	0.12%
<i>HHW</i>	0.38%
<i>Fines</i>	5.75%
Total	100.00%

Figure 3: Hand-picked litter composition



The most common category found within the hand-picked litter waste was paper and card, which accounted for an average 26.7%. This included 13.6% of widely recyclable paper and card.

The second most prominent category was food (17.4%). Dense plastics accounted for 12.8% of the overall composition followed by glass at 11.3%. Additionally, metals accounted for 2.4% and 6.7% for ferrous and non-ferrous metals respectively.

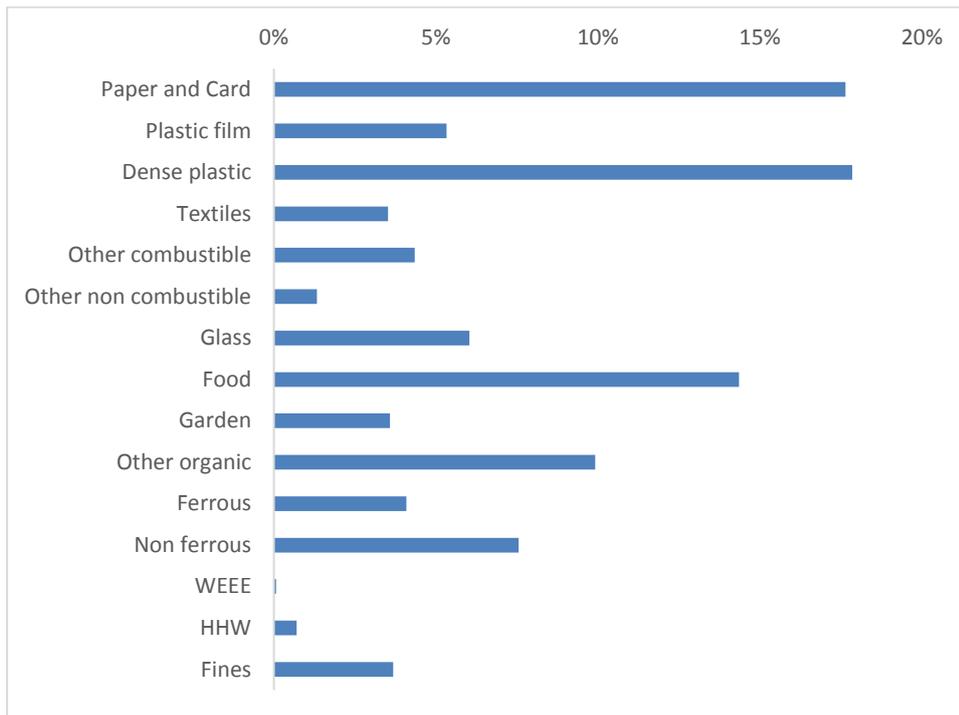
3.1.3 *Recycling bin composition*

The overall average composition of all recycling bin litter analysed over the four-day period is shown in Table 6 and Figure 4 below. Recycling bins were analysed in only one of the authorities, which limits the usefulness of the data so that it cannot be taken to be representative of litter elsewhere.

Table 6: Litter recycling bin composition

<i>Category</i>	<i>Composition % by weight</i>
<i>Paper and Card</i>	17.64%
<i>Plastic film</i>	5.33%
<i>Dense plastic</i>	17.85%
<i>Textiles</i>	3.52%
<i>Other combustible</i>	4.35%
<i>Other non-combustible</i>	1.33%
<i>Glass</i>	6.03%
<i>Food</i>	14.35%
<i>Garden</i>	3.58%
<i>Other organic</i>	9.91%
<i>Ferrous</i>	4.09%
<i>Non-ferrous</i>	7.55%
<i>WEEE</i>	0.07%
<i>HHW</i>	0.70%
<i>Fines</i>	3.68%
Total	100.00%

Figure 4: Litter recycling bin composition

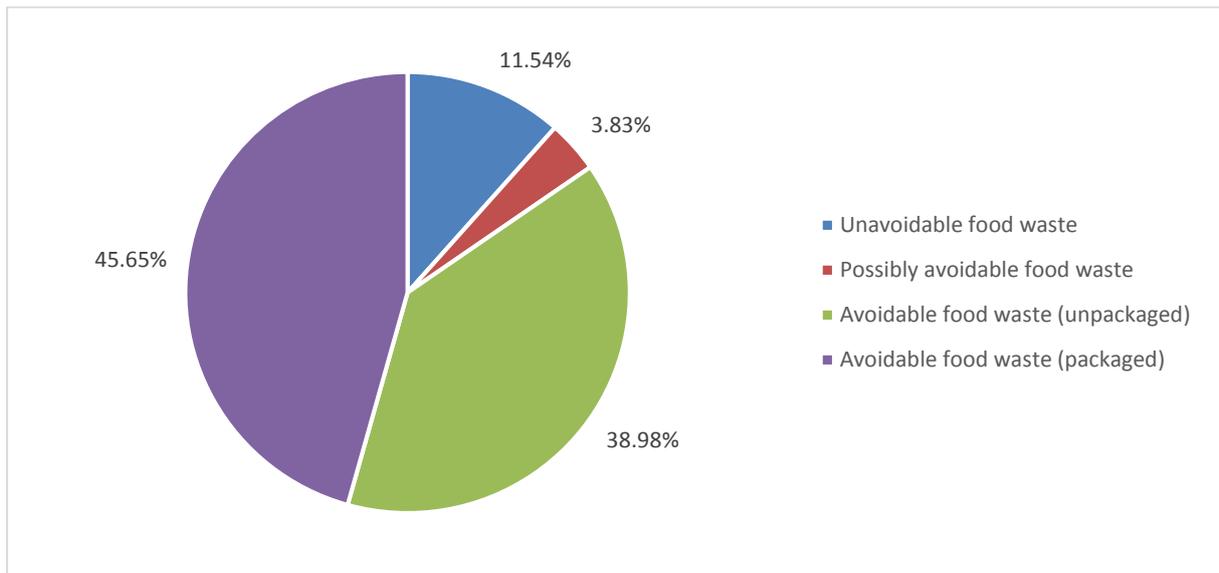


Dense plastic accounted for 17.9% of recycling bins, while paper and card accounted for 17.6%. Food and 'other organic' waste (mainly pet excrement) accounted for a large proportion of the composition of the recycling bins, showing that they are not used correctly. Glass (6%) and metals including ferrous (4%) and non-ferrous (7.6%) also appeared in large quantities but the contamination found meant that it would not have been able to be recycled.

3.1.4 Food waste

Food waste accounted for 18.5% of litter composition overall, including litter bins and hand-picked litter. Of this, the majority was avoidable food waste which could have been eaten if it had not been discarded. Unavoidable food waste, such as egg shells, fruit peel, tea bags, etc., accounted for only 3.8% of all litter and 11.5% of food waste, with a further 3.8% of food waste identified as 'possibly avoidable'. Unpackaged, avoidable food waste comprised 7.2% of total litter waste and 38.9% of food waste, but 45.7% of food was still in its packaging.

Figure 5: Composition of food waste, % by weight

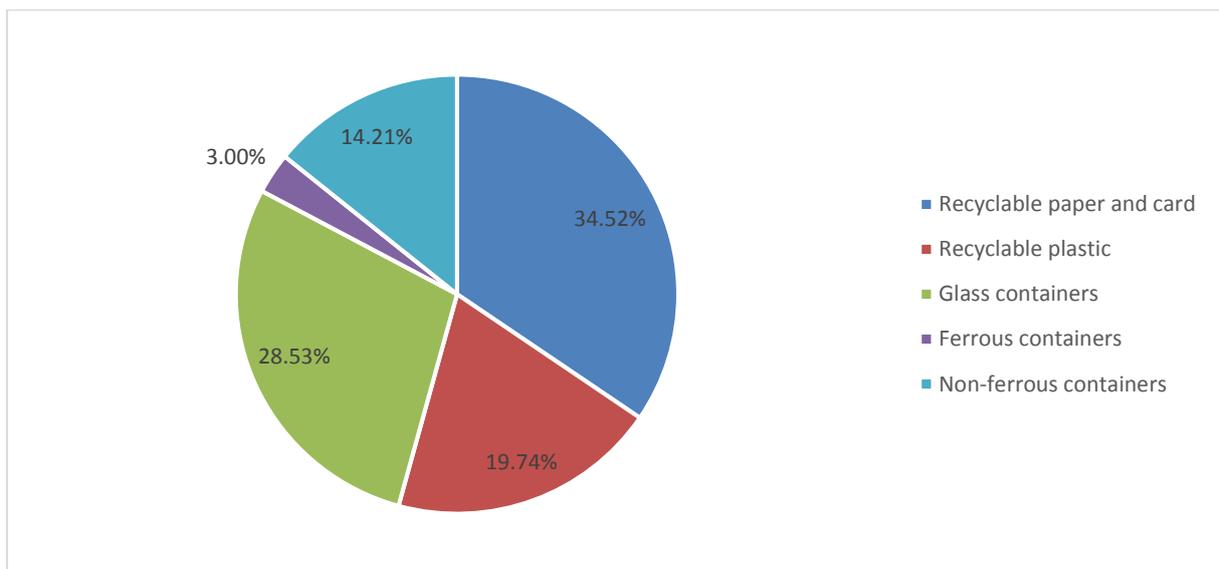


3.1.5 Mixed dry recyclables

Mixed dry recyclables include recyclable paper and card, plastic bottles, tubs and trays, glass containers, and ferrous and non-ferrous containers. All these materials are widely recycled through kerbside recycling collections across Wales.

Mixed dry recyclables made up 34.9% of the litter analysed with recyclable paper and card being the most prevalent (34.5%) as well as glass containers (28.5%). Plastic and metal tins and cans were also found but account for a smaller proportion of the recyclable materials found. Figure 6 shows the composition of these materials found in litter.

Figure 6: The composition of mixed dry recyclables, % by weight



3.1.6 Takeaway waste

Takeaway packaging was weighed and found to comprise very little of the litter that was analysed overall. To an extent, this type of waste was difficult to identify from other

forms of packaging waste. The most prevalent forms of takeaway litter by weight were coffee cups and thin cardboard packaging. Plastic waste such as polystyrene trays were also found but weighed little by comparison.

3.1.7 Fines waste composition

Little was known about the occurrence of fine material within litter. It was expected that if the authority did not include manual street sweepings as samples, then the amount of fine material would be quite low. A more detailed analysis of the fine materials was carried out to understand the prevalence of specific items such as cigarette litter and chewing gum. On average 4.5% of the material was fines. This mostly consisted of small pieces of food and paper and card. Cigarette litter and chewing gum, which is often targeted by littering campaigns, only accounted for 7.6% and 0.4% of the fines composition.

3.1.8 Anecdotal observations from composition sorting

- In Ceredigion the analysis team reported that a significant proportion of the waste analysed included black bags containing typical household waste. It is not possible to know whether these bags had been placed within the bins themselves by residents, or whether they had been placed next to the litter bins and been collected alongside the litter. The inclusion of excess household residual waste within the sample will have affected its composition.
- In Conwy the analysis team reported that certain samples contained waste which, although not bagged, seemed more like household waste, which had been placed in litter bins, rather than normal litter bin waste. Some of the unusual items identified included carpet and underlay (around 10kg), cleaning products and food packaging from items which would not be eaten “on the move”.
- In Ceredigion the analysis team found several large bags of pet excrement containing many smaller bags, which looked like residents had bulked the material up then disposed of them in the litter bin, possibly to avoid putting the material in their own residual bin.
- There was very little difference between the composition of the residual waste and recycling waste sections of the Ceredigion litter bins. It is thought that perhaps the residents of Ceredigion are not noticing the signage on the litter bins, as this is very discreet.

4.0 Key findings

- Paper and card accounted for the greatest proportion of litter, overall this type of material comprised 23% of the litter analysed across all four areas.
- Putrescibles, if included in one higher category, accounted for even more, 30.4%.
- With the analysis focusing on separate categories of food, garden, and other organic waste, it is the food element which accounts for most of this, and for

18.5% of the litter analysed. The 'other organic' element in litter (10.4%) mainly contained pet excrement.

- The food waste analysed consisted almost entirely of avoidable food waste (84.6%), and 45.7% of the food waste analysed was still packaged.
- The composition of the litter placed in the residual litter bins differed very little for the composition of the litter within the recycling litter bins. This suggests residents are not segregating materials on disposal (knowingly or not).
- Anecdotal evidence suggests some residents seem to be using the litter bins for excess residual waste disposal.
- About a third (34.9%) of the waste was material that is widely recycled by the Welsh local authorities such as newspapers and food and drink containers– this demonstrates that there is potentially valuable material within this waste stream which could be recycled. Based on 2015/16 WasteDataFlow returns this could be as much as 14,622 tonnes per year.
- The composition differed between litter bins and litter picked manually, with the latter including less food waste, and more paper and card and potentially recyclable packaging. This suggests that segregating the material by the pickers may be a good way of diverting some of the recyclable material from this stream.
- Materials thought to account for significant amounts of litter such as takeaway containers, coffee cups, carrier bags or cigarette butts do not account for significant amounts of material by weight.

4.1.1 Further research

A mapping exercise on collection methods and responsibility for litter within the authorities could be a useful baseline for any future engagement and recycling initiatives that may be introduced in Wales to divert further material to recycling and meet targets.

As the analysis was carried out by weight, it would be interesting to carry out some further litter analysis including both volume and weight measurements. Volume is a key consideration for litter bin provision and collection frequency. It may also be interesting to compare the results of standard observational litter surveys on the streets and the composition of the litter picking portion of the waste stream.

Appendix 1: Category List

Level 1	Level 2	Level 3	Potentially includes takeaway packaging?	Examples
1. Paper and Card	Recyclable paper	Non-packaging		news and mags, junk mail, household/office paper, envelopes, books, catalogues, directories
	Recyclable paper	Packaging	yes	
	Thin card	Non-packaging		greetings cards
	Thin card	Packaging	Yes	cereal boxes, tea boxes
	Corrugated card	Non-packaging		e.g. cardboard sheets
	Corrugated card	Packaging	Yes	large boxes
	Drink cartons (Tetrapaks)	Packaging	Yes	juice boxes, UHT milk
	Kitchen roll and tissues			tissues and wipes but not the polyester variety
	Food contaminated paper and card		yes	pizza boxes, chip shop paper
	Waxed/laminate/wet strength paper and card		yes	takeaway trays lids, coffee cups COUNT THE CUPS
	Other non-recyclable paper and card			wallpaper, photo paper
2. Plastic Film	Carrier bags	Single use carrier bags		
	Carrier bags	Bags for life		
	Recyclable plastic film			Bubble wrap, bread bags
	Other plastic film		Yes	including black bags
3. Dense Plastic	Plastic bottles	Packaging	Yes	All types
	Plastic tubs and trays	Packaging	Yes	All types not black plastic trays
	Other dense plastic	Polystyrene packaging	Yes	
	Other dense plastic			toys, pipes, hangers, black plastic, pvc, plastic furniture
4. Textiles			Clothes, shoes, accessories, handbags, rags, sheets, blankets, towels, pillows, sleeping bags, duvets	

Level 1	Level 2	Level 3	Potentially includes takeaway packaging?	Examples
5. Other Combustible	Hygiene products			Nappies, pads, feminine absorption products
	Other combustible			Wooden and soft furniture, NOT plastic or metal, wood and cork, sponges, candles, plastic wet wipes etc.
	Multilayer packaging			Pouches, Pringle tubes
6. Other Non-Combustible	Other non-combustible			Inert materials, ceramics, crockery, rubble, plasterboard, clay cat litter
7. Glass	Glass bottles and jars		Yes	
	Glass non-packaging			Drinking glasses, pane glass
8. Putrescibles	Garden waste			include straw pet bedding from herbivores pets (Guinee pigs, hamsters, rabbits)
	Soil			
	Unavoidable food waste			Bones, gristle, cheese wax, nut shells, fruit stones; pineapple, banana, avocado, melon skin, fruit cores, fruit stalks, tops and stalks of veg except broccoli, cauliflower, mushrooms, garlic/ginger/onion peel, teabags, coffee grounds, egg shells, sprouting potato
	Possibly avoidable food waste			Bread crusts and end slices, fat from meat, fish skin; apply, citrus, plum, peach peel; carrot, potato, courgette, tomato peel; mushroom cauli, broccoli stalks; herb stalks, used cooking oil; pie, pizza, sandwich crusts.

Level 1	Level 2	Level 3	Potentially includes takeaway packaging?	Examples
	Avoidable food waste (unpackaged)			Cooked and prepared meals, whole fruit, veg, fruit & veg flesh, whole coffee products, unused teabags, cakes, bread slices, whole loaves, rolls, unused oils, margarine/butter, confectionary, condiments, meat & fish cooked and raw
	Avoidable food waste (packaged)			as above but packaged.
	Other organic			Pet litter including wooden cat litter, unidentifiable
9. Ferrous Metal	Ferrous cans and tins	packaging		
	Ferrous aerosols	packaging		
	Other ferrous items			Pans, tools, cutlery, pipes, metal furniture
10. Non-Ferrous Metal	Non-Ferrous cans	packaging	Yes	
	Non-Ferrous aerosols	packaging		
	Aluminium foil	packaging		including foil trays
	Other non-ferrous			Pans, tools, cutlery, pipes, non-ferrous furniture
11. Waste Electrical and Electronic Equipment				Toasters, kettles, hair and beauty, chargers, toys, cables, lamps, vacuum cleaners, power tools, keyboards, laptops, games, phones and mobile phones
12. Potentially Household Hazardous Waste Items				Paint, medicine, chemicals, batteries
13. Fine Material				detailed analysis
14. Collection sacks				

www.wrapcymru.org.uk/CompositionalAnalysisWales

