![WRAP Northern Ireland logo]

Volume 2 – Local Authority Waste Composition Analysis

Northern Ireland Kerbside Waste Composition 2017

The composition of kerbside collected household waste in Northern Ireland compiled from a two-phase fieldwork campaign in 2017

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This project report comes in two parts:
- Volume 1: Provides a summary overview of the project details results for Northern Ireland as a single entity.
- Volume 2: Provides result information for each of the eleven participating local authorities.

RPS

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Volume 2 – Local Authority Waste Composition Analysis

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Volume 2

Local Authority Waste Composition Analysis

1.0   Introduction

Volume 2 presents the results for the compositional analysis of kerbside residual, recyclable and organic waste streams from the 11 local authorities in Northern Ireland. Results from both seasonal phases of the analysis are included and the data is presented at the primary category level.

Target materials are recyclable materials placed in the correct recycling bin. The target materials have been confirmed by gathering data from the participating local authorities. This information has also been verified by a web search to ascertain the level of information on items accepted or not to the householder for example, kerbside recycling information leaflets.   The target and non-target materials have also been verified via the specific sampling plan and operational plan developed for each local authority by RPS prior to initiation of the fieldwork.

The composition and weights of biodegradable food bags is not included in the results for the organic waste stream but are presented in Section 13.0.

2.0   Antrim and Newtownabbey

2.1   Residual waste composition

Residual waste sample in Phase 1 (2,547.6 kg) was composed of 32.8% (836.5 kg) target dry recycling, 0.7% (16.9 kg) garden waste and 25.0% (637.0 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (26.0%), paper and cardboard (15.3%) and healthcare waste (10.6%).

Residual waste in Phase 2 (2,111.8 kg) composed of 35.7% (753.7 kg) target dry recycling, 0.3% (5.7 kg) garden waste and 19.0% (400.2 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

Similarly to Phase 1, the prevalent primary composition categories in the Phase 2 residual sample were food wastes (21.0%), paper and cardboard (16.9%) and healthcare waste (14.0%).

2.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (504.1 kg) consisted of 88.2% (444.8 kg) target material and 11.8% (59.4 kg) non-target material. Paper and cardboard (63.5%) and dense plastic (20.0%) were the main target materials in the Phase 1 commingled recyclates sample.   Non-target materials included food waste (4.5%), glass (1.6%) and plastic film (1.5%).

In Phase 2 the proportion of target material in the commingled recyclates sample (576.4 kg) decreased slightly to 87.4% (503.9 kg) and non-target material increased to 12.6% (72.5 kg).   Paper and cardboard (62.1%) and dense plastic (19.1%) were the main target materials in the Phase 2 commingled recyclates sample. Non-target materials included food waste (3.9%), glass (3.5%) and plastic film (1.5%).

In Phase 1, the source segregated recyclates sample (114.5 kg) contained 99.0 % (113.4 kg) target material and 1.0% (1.1 kg) non-target material. The prevalent target materials were paper and cardboard (36.1%), glass (34.8%) and dense plastic (21.3%). Non-target materials included plastic film (0.1%) and mixed scrap metal (0.1%).

In Phase 2 the proportion of target materials in source segregated recyclates sampled (114.7 kg) decreased to 96.3 % (139.4 kg) and non-target material increased to 3.7% (5.3 kg) of non-target material. Paper and cardboard (42.6%), glass (21.7%) and dense plastic (17.7%) were the main target materials. Non-target materials included plastic film (0.9%), food waste (0.9%), healthcare waste (0.7%) and miscellaneous combustibles (0.5%).

2.3   Organic waste composition

Phase 1 separate food sample (56.7 kg) contained 97.8% (55.4 kg) of target material and 2.2% (1.3 kg) of non-target material. The 2.2% of non-target material consisted of paper and cardboard (2.1%) and healthcare waste (0.1%). Between Phase 1 and Phase 2, Antrim and Newtownabbey Borough Council extended its commingled organic bin collection service to all households in the council area replacing food caddies.

The Phase 1 commingled organics sample (1,744.2 kg) consisted of 97.4% (1,699.7 kg) of target material and 2.6% (44.5 kg) of non-target material. Non-target materials included miscellaneous combustibles (0.6%) and dense plastic (0.1%). In Phase 2 the proportion of target material in the commingled organics sample (2,561.3 kg) increased to 98.0% (2,509.4 kg) and non-target material decreased to 2.0% (51.8 kg) of non-target material. Non-target materials included miscellaneous combustibles (0.5%) and miscellaneous non-combustibles (0.4%).

2.4   Overall waste composition

Figures 1-3 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:

- Food waste (23.5%)
- Paper and cardboard (16.1%)
- Healthcare waste (12.3%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (52.6%)
- Dense plastic (19.5%)
- Glass (13.7%)

The prevalent primary categories in the combined organics composition were:
- Garden waste (77.7%)
- Food waste (19.9%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 1 and Table 2 and in kilogram per household per week in Table 3 and Table 4 below.

Figure 1 Overall composition (%) of primary waste categories in residual stream sample

Residual Overall Composition (%) - Antrim & Newtownabbey

- Fine, 0.8%
- Glass, 8.4%
- Healthcare Waste, 12.3%
- Paper and Card, 16.1%
- HHW, 0.5%
- Non Combustibles, 4.0%
- FE Metal, 1.3%
- Non FE Metal, 1.7%
- Textiles, 5.0%
- Mixed Scrap Metal, 1.6%
- Combustibles, 3.6%
- WEEE, 1.1%
- Dense Plastic, 10.2%
- Food Waste, 23.5%
- Garden Waste, 0.7%
- Plastic Film, 9.3%
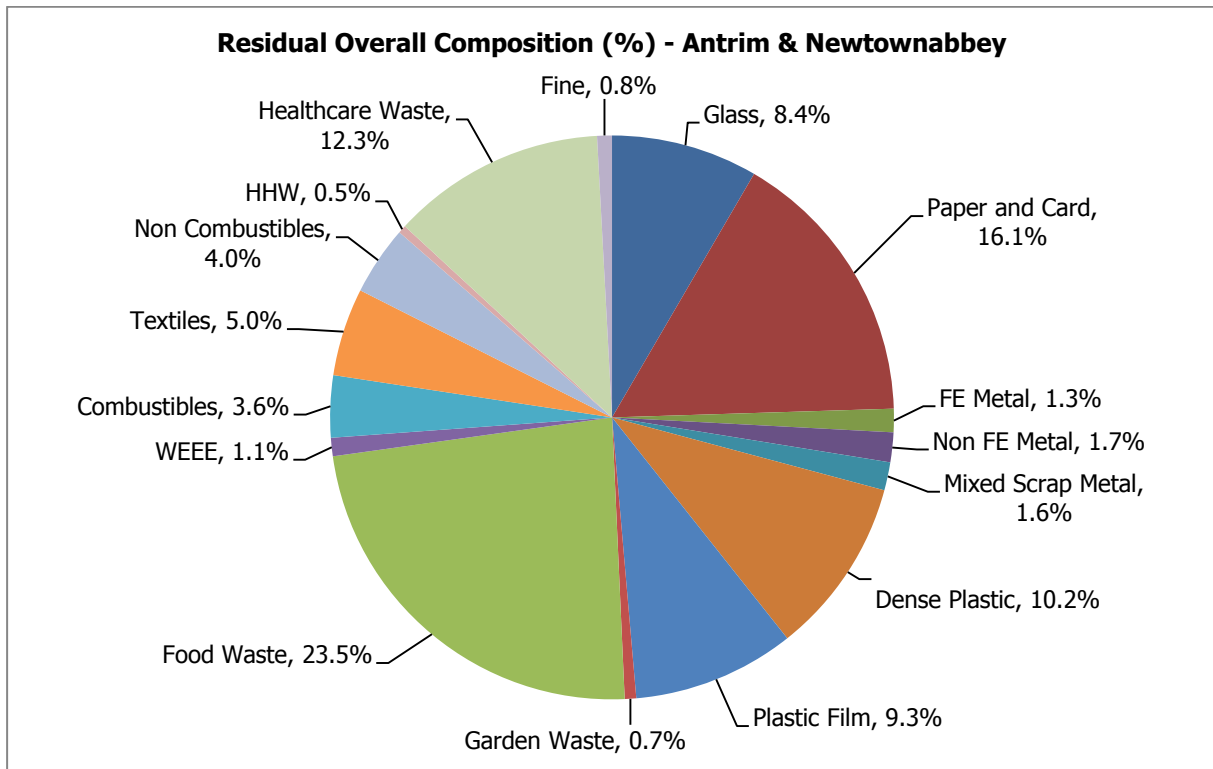
Figure 2 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Antrim & Newtownabbey

- WEEE, 0.2%
- Combustibles, 0.3%
- Textiles, 1.7%
- Food Waste, 2.6%
- Healthcare Waste, 0.3%
- Plastic Film, 1.1%
- Glass, 13.7%
- Dense Plastic, 19.5%
- Mixed Scrap Metal, 0.2%
- Non FE Metal, 3.3%
- Paper and Card, 52.6%
- FE Metal, 4.2%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine
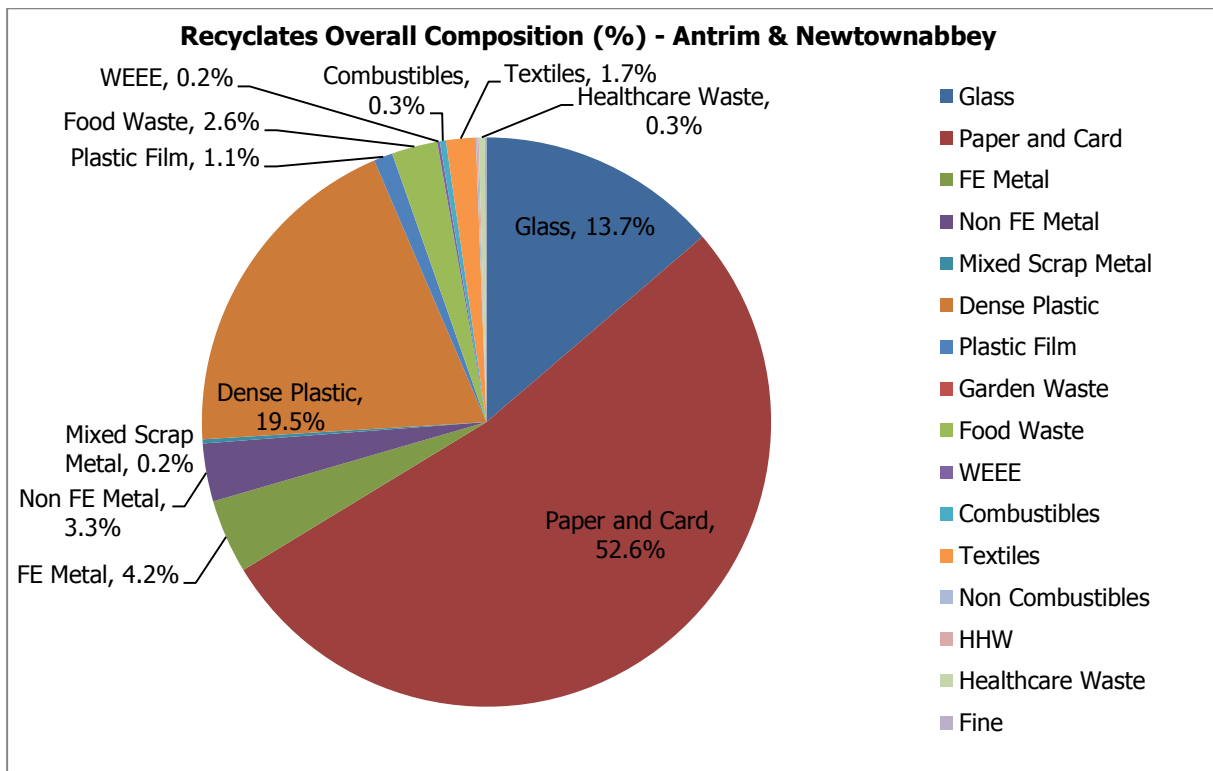
Figure 3 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Antrim & Newtownabbey

Paper and Card, 1.0%

Food Waste, 19.9%

Garden Waste, 77.7%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine

Table 1 Phase 1 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Antrim and Newtownabbey Borough Council					
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Food Waste Composition (%)
Glass	8.6%	1.6%	34.8%	0.0%	0.0%
Paper and cardboard	15.3%	63.5%	36.1%	0.8%	2.1%
FE metal	1.5%	3.3%	5.2%	0.0%	0.0%
Non FE metal	1.8%	3.3%	1.4%	0.0%	0.0%
Mixed scrap metal	1.3%	0.4%	0.1%	0.0%	0.0%
Dense plastic	9.9%	20.0%	21.3%	0.1%	0.0%
Plastic film	9.5%	1.5%	0.1%	0.0%	0.0%
Garden waste	1.0%	0.0%	0.0%	88.1%	0.0%
Food wastes	26.0%	4.5%	0.1%	9.7%	97.8%
WEEE	0.6%	0.3%	0.3%	0.0%	0.0%
Misc. combustible	2.7%	0.4%	0.0%	0.6%	0.0%
Textiles & footwear	5.4%	0.5%	0.7%	0.0%	0.0%
Misc. non-combustible	4.2%	0.1%	0.0%	0.0%	0.0%
Hazardous wastes	0.2%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	10.6%	0.3%	0.0%	0.6%	0.1%
Fines (<10mm)	1.5%	0.2%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Table 2 Phase 2 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Antrim and Newtownabbey Borough Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)
Glass	8.2%	3.5%	21.7%	0.2%
Paper and cardboard	16.9%	62.1%	42.6%	1.2%
FE metal	1.2%	4.2%	4.5%	0.0%
Non FE metal	1.6%	4.1%	4.1%	0.0%
Mixed scrap metal	2.0%	0.2%	0.2%	0.0%
Dense plastic	10.4%	19.1%	17.7%	0.1%
Plastic film	9.1%	1.5%	0.9%	0.1%
Garden waste	0.3%	0.0%	0.0%	67.4%
Food wastes	21.0%	3.9%	0.9%	29.9%
WEEE	1.5%	0.0%	0.0%	0.0%
Misc. combustible	4.4%	0.4%	0.5%	0.5%
Textiles & footwear	4.7%	0.2%	5.9%	0.0%
Misc. non-combustible	3.8%	0.2%	0.0%	0.4%
Hazardous wastes	0.7%	0.0%	0.3%	0.0%
Healthcare waste	14.0%	0.4%	0.7%	0.1%
Fines (<10mm)	0.2%	0.2%	0.0%	0.1%
Total	**100%**	**100%**	**100%**	**100%**

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Table 3 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Local Authority: Antrim and Newtownabbey Borough Council				
	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Waste Composition (kg/hhd/wk)
Glass	0.7	0.0	0.8	0.0	0.0
Paper and cardboard	1.3	1.6	0.8	0.1	0.0
FE metal	0.1	0.1	0.1	0.0	0.0
Non FE metal	0.1	0.1	0.0	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0	0.0
Dense plastic	0.8	0.5	0.5	0.0	0.0
Plastic film	0.8	0.0	0.0	0.0	0.0
Garden waste	0.1	0.0	0.0	6.6	0.0
Food wastes	2.2	0.1	0.0	0.7	0.8
WEEE	0.1	0.0	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.0	0.0
Textiles & footwear	0.5	0.0	0.0	0.0	0.0
Misc. non-combustible	0.4	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.0	0.0	0.0	0.0
Fines (<10mm)	0.1	0.0	0.0	0.0	0.0
Total	**8.5**	**2.6**	**2.2**	**7.5**	**0.8**

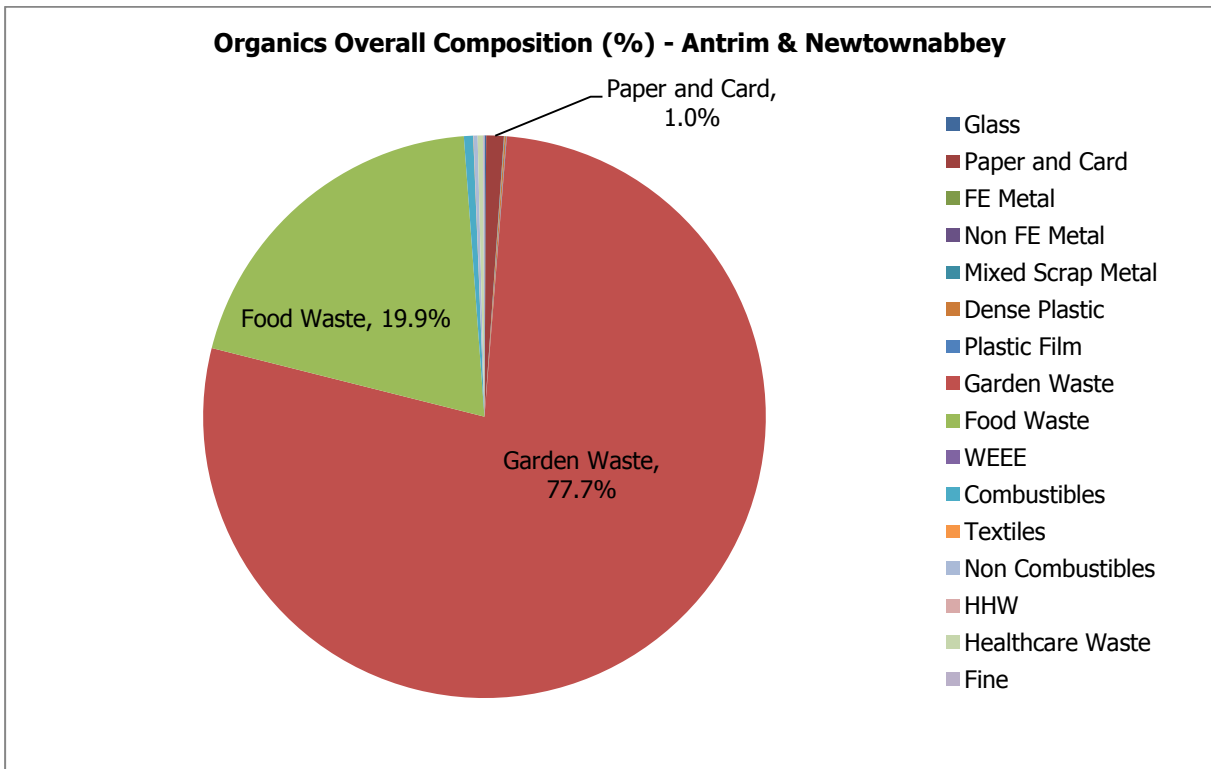**Table 4 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample**

Local Authority: Antrim and Newtownabbey Borough Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)
Glass	0.6	0.1	0.6	0.0
Paper and cardboard	1.2	1.8	1.2	0.1
FE metal	0.1	0.1	0.1	0.0
Non FE metal	0.1	0.1	0.1	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0
Dense plastic	0.7	0.6	0.5	0.0
Plastic film	0.6	0.0	0.0	0.0
Garden waste	0.0	0.0	0.0	5.8
Food wastes	1.5	0.1	0.0	2.6
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.3	0.0	0.0	0.0
Textiles & footwear	0.3	0.0	0.2	0.0
Misc. non-combustible	0.3	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.0	0.0	0.0	0.0
Fines (<10mm)	0.0	0.0	0.0	0.0
Total	**7.0**	**2.9**	**2.8**	**8.5**

3.0   Ards and North Down

3.1   Residual waste composition

Residual waste sample in Phase 1 (2,150.9 kg) was composed of 17.7% (380.8 kg) target dry recycling, 0.2% (3.7 kg) garden waste and 16.7% (358.8 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (17.3%), paper and cardboard (16.4%) and healthcare waste (13.1%).

Residual waste in Phase 2 (1,702.6 kg) composed of 24.8% (422.3 kg) target dry recycling, 0.0% (0.0 kg) garden waste and 17.8% (302.5 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The main primary composition categories in the Phase 2 residual sample were food waste (19.6%), healthcare waste (16.4 %) and paper and cardboard (16.2%).

3.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (840.3 kg) consisted of 90.5% (760.1 kg) of target material and 9.5% (80.2 kg) of non-target material. The main target materials in Phase 1 commingled recyclates sample were paper and cardboard (74.3%) and dense plastic (14.2%). Non-target materials included plastic film (1.6%), glass (1.2%) and food waste (1.0%).

In Phase 2, the commingled recyclates sample (872.2 kg) consisted of 87.6% (764.3 kg) of target material and 12.4% (107.9 kg) of non-target material. The prominent target materials were paper and cardboard (65.9%) and dense plastic (18.8%). Non-target materials included food waste (3.2%) and plastic film (2.3%).

A kerbside glass collection was introduced to all households in Ards and North Down Borough Council after Phase 1 in June 2017 which is uplifted every 4 weeks. The separate glass collection sample was weighed at the kerbside in Phase 2 and weighed 284.3 kg.

3.3   Organic waste composition

The Phase 1 commingled organics sample (1,505.1 kg) consisted of 97.0% (1,460.2 kg) of target material and 3.0% (44.8 kg) of non-target material. The Phase 2 commingled organics sample (1,953.7 kg) contained 99.4% (1,942.9 kg) target material and 0.6% (10.8 kg) of non-target material. Miscellaneous combustibles were the main non-target material present in Phase 1 (0.7%) and Phase 2 (0.2%) commingled organics samples.

3.4   Overall waste composition

Figures 4-6 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
■ Food waste (18.5%)
■ Paper and cardboard (16.3%)
■ Healthcare waste (14.8%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (65.5%)
- Dense plastic (15.2%)
- Glass (7.9%)

The prevalent primary categories in the combined organics composition were:
- Garden waste (74.2%)
- Food waste (22.2%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 5 and in kilogram per household per week in Table 6 below.

Figure 4 Overall composition (%) of primary waste categories in residual stream sample
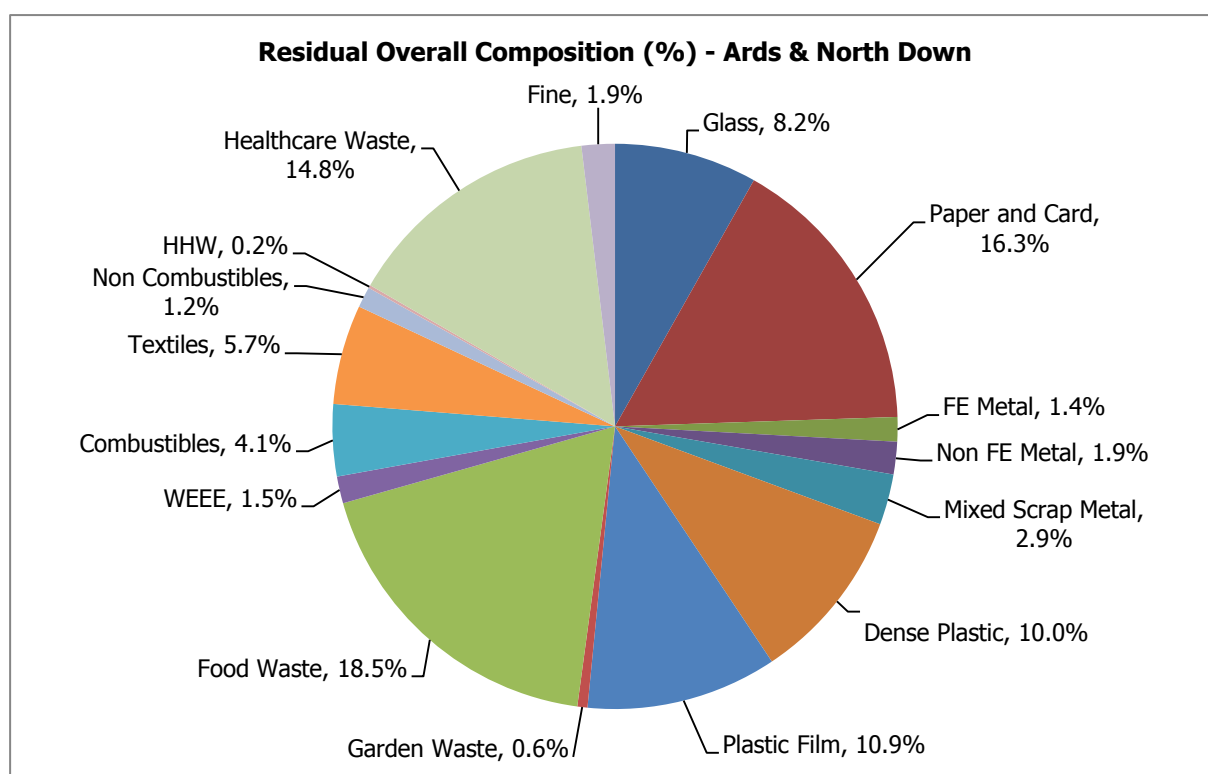
Figure 5 Overall composition (%) of primary waste categories in recyclates stream sample
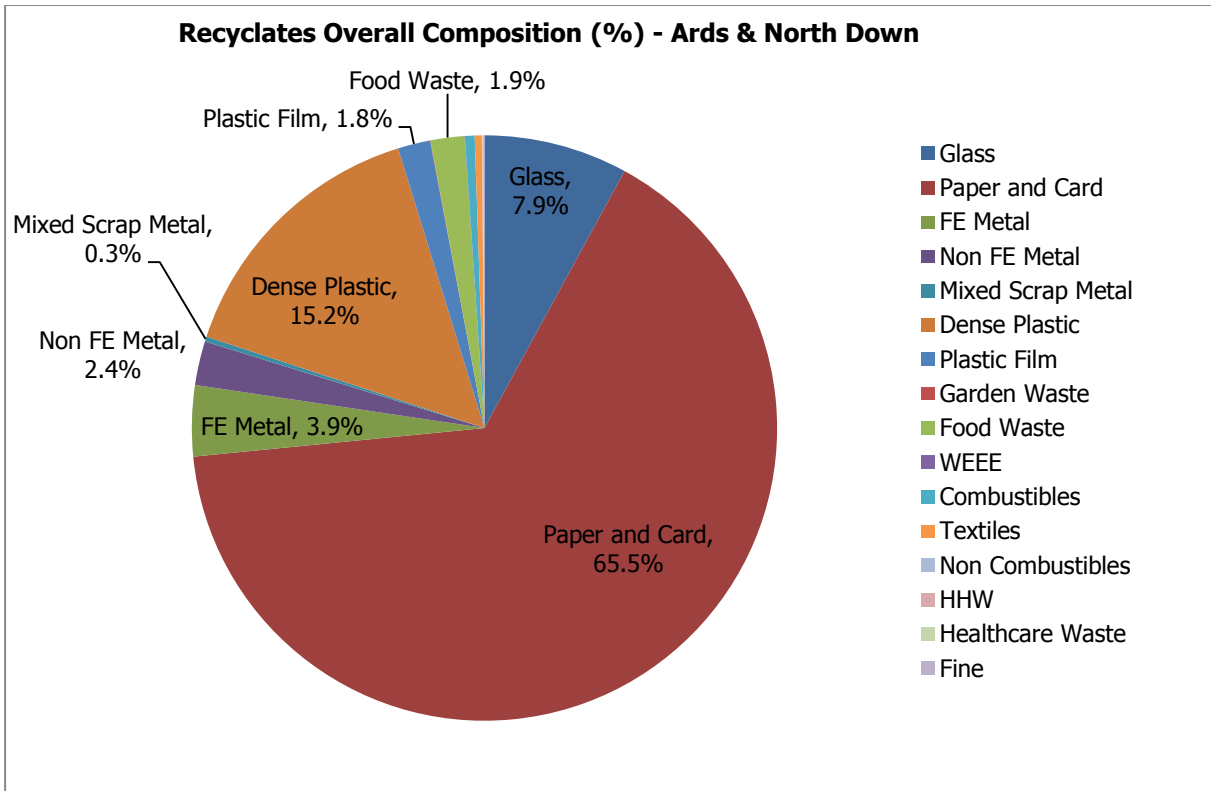
Figure 6 Overall composition (%) of primary waste categories in organics stream sample

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Table 5 Phase 1 and Phase 2 Composition (%) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (%)	Phase 2 Residual Composition (%)	Phase 1 Commingled Recyclates Composition (%)	Phase 2 Commingled Recyclates Composition (%)	Phase 2 Separate Glass Composition (%)	Phase 1 Commingled Organics Composition (%)	Phase 2 Commingled Organics Composition (%)
Glass	11.7%	4.7%	1.2%	0.8%	100.0%	0.0%	0.0%
Paper and cardboard	16.4%	16.2%	74.3%	65.9%	0.0%	0.6%	0.5%
FE metal	1.4%	1.4%	4.5%	3.8%	0.0%	0.0%	0.0%
Non FE metal	2.0%	1.8%	2.2%	3.1%	0.0%	0.0%	0.0%
Mixed scrap metal	3.4%	2.4%	0.3%	0.3%	0.0%	0.1%	0.0%
Dense plastic	8.3%	11.7%	14.2%	18.8%	0.0%	0.2%	0.0%
Plastic film	8.3%	13.5%	1.6%	2.3%	0.0%	0.0%	0.0%
Garden waste	0.9%	0.3%	0.0%	0.0%	0.0%	64.6%	83.8%
Food wastes	17.3%	19.6%	1.0%	3.2%	0.0%	29.4%	15.0%
WEEE	0.9%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Misc. combustible	6.9%	1.3%	0.4%	0.8%	0.0%	0.7%	0.2%
Textiles & footwear	4.4%	7.0%	0.1%	0.7%	0.0%	0.0%	0.0%
Misc. non-combustible	1.3%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Hazardous wastes	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Healthcare waste	13.1%	16.4%	0.1%	0.0%	0.0%	3.8%	0.4%
Fines (<10mm)	3.5%	0.3%	0.1%	0.0%	0.0%	0.5%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The table header "Local Authority: Ards & North Down Borough Council" spans the full table.

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Table 6 Phase 1 and Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (kg/hhd/wk)	Phase 2 Residual Composition (kg/hhd/wk)	Phase 1 Commingled Recyclates Composition (kg/hhd/wk)	Phase 2 Commingled Recyclates Composition (kg/hhd/wk)	Phase 2 Separate Glass Composition (kg/hhd/wk)	Phase 1 Commingled Organics Composition (kg/hhd/wk)	Phase 2 Commingled Organics Composition (kg/hhd/wk)
Glass	0.8	0.3	0.0	0.0	0.5	0.0	0.0
Paper and cardboard	1.2	0.9	2.1	1.9	0.0	0.0	0.0
FE metal	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Non FE metal	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Mixed scrap metal	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Dense plastic	0.6	0.7	0.4	0.5	0.0	0.0	0.0
Plastic film	0.6	0.8	0.0	0.1	0.0	0.0	0.0
Garden waste	0.1	0.0	0.0	0.0	0.0	3.2	5.5
Food wastes	1.2	1.1	0.0	0.1	0.0	1.5	1.0
WEEE	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Misc. combustible	0.5	0.1	0.0	0.0	0.0	0.0	0.0
Textiles & footwear	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Misc. non-combustible	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.9	0.0	0.0	0.0	0.2	0.0
Fines (<10mm)	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total	**7.2**	**5.7**	**2.8**	**2.9**	**0.5**	**5.0**	**6.5**

4.0   Armagh, Banbridge and Craigavon

4.1   Residual waste composition

Residual waste sample in Phase 1 (2,764.8 kg) was composed of 27.5% (759.9 kg) target dry recycling, 0.8% (23.2 kg) garden waste and 28.8% (795.6 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food wastes (30.4%), paper and cardboard (14.2%) and healthcare waste (11.4%).

Residual waste in Phase 2 (2,791.5 kg) composed of 34.3% (957.9 kg) target dry recycling, 0.3% (7.1 kg) garden waste and 26.0% (726.6 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The main primary composition categories in the Phase 2 residual sample were food wastes (27.2%), paper and cardboard (16.8%) and dense plastic (10.0%).

4.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (545.7 kg) consisted of 83.3% (454.6 kg) of target material and 16.7% (91.1 kg) of non-target material. Paper and cardboard (38.3%), glass (26.6%) and dense plastic (17.3%) were the main target materials. Non-target materials included food waste (5.9%) and plastic film (1.8%).

In Phase 2, the proportion of target material in the commingled recyclates sample (740.6 kg) increased to 88.4% (654.4 kg) and non-target material decreased to 11.6% (86.2 kg). Paper and cardboard (50.9%), glass (18.6%) and dense plastic (16.1%) were the main target materials. Non-target materials included plastic film (2.8%) and food waste (1.7%).

The Phase 1 source segregated recyclates sample (190.2 kg) contained 97.4% (185.2 kg) of target material and 2.6% (5.0 kg) of non-target material. The key target materials were glass (48.2%), paper and cardboard (33.3%) and dense plastic (9.5%). Non-target materials included mixed scrap metal (0.4%) and food waste (0.1%).

The Phase 2, the proportion of target materials in the source segregated recyclates sample (151.3 kg) increased to 99.1% (150.0 kg) and non-target material decreased to 0.9% (1.3 kg. Glass (49.2%), paper and cardboard (30.0%) and dense plastic (12.5%) were the dominant target materials. Non-target materials included plastic film (0.2%).

4.3   Organic waste composition

The Phase 1 commingled organics sample (1,655.7 kg) contained 95.3% (1,577.3 kg) of target material and 4.7% (78.4 kg) of non-target material. Non-target materials included fines (1.2%) and miscellaneous combustibles (0.6%). The Phase 2 commingled organics sample (995.9 kg) consisted of 96.4% (960.2 kg) of target material and 3.6% (35.7 kg) of non-target material. Non-target materials included miscellaneous combustibles (0.7%) and textiles and footwear (0.2%).

The Phase 1 separate food waste sample (55.6 kg) consisted of 100.0% (55.6 kg) of target material and 0.0% of non-target material. The Phase 2 separate food waste sample (81.8 kg) contained 100.0% (81.8 kg) target material and 0.0% (0.0 kg) of non-target material.

4.4   Overall waste composition

Figures 7-9 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (28.8%)
- Paper and cardboard (15.5%)
- Healthcare waste (10.5%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (42.6%)
- Glass (27.2%)
- Dense plastic (15.6%)

The prevalent primary categories in the combined organics composition were:
- Garden waste (80.8%)
- Food waste (15.9%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 7 and Table 8 and in kilogram per household per week in Table 9 and Table 10 below.

Figure 7 Overall composition (%) of primary waste categories in residual stream sample
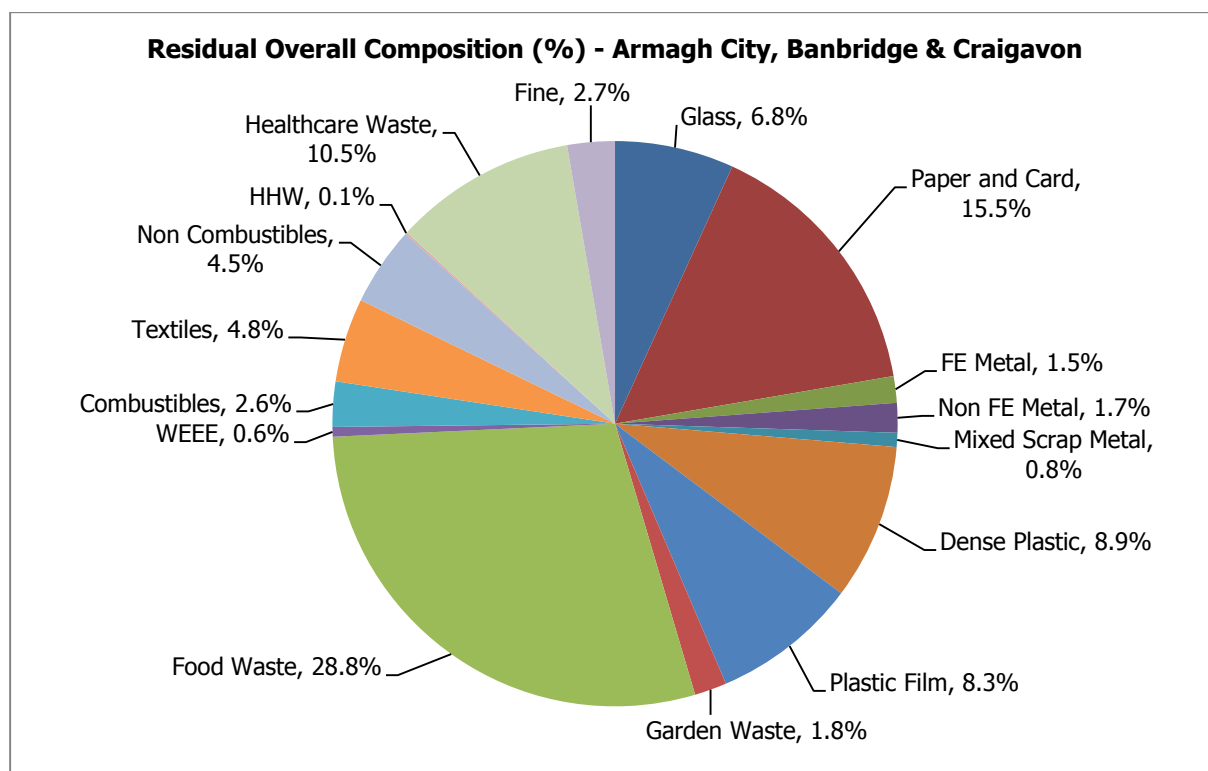
Figure 8 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Armagh City, Banbridge & Craigavon

- Glass, 27.2%
- Paper and Card, 42.6%
- FE Metal, 3.3%
- Non FE Metal, 2.7%
- Mixed Scrap Metal, 0.4%
- Dense Plastic, 15.6%
- Plastic Film, 1.9%
- Food Waste, 3.1%
- Textiles, 1.0%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine
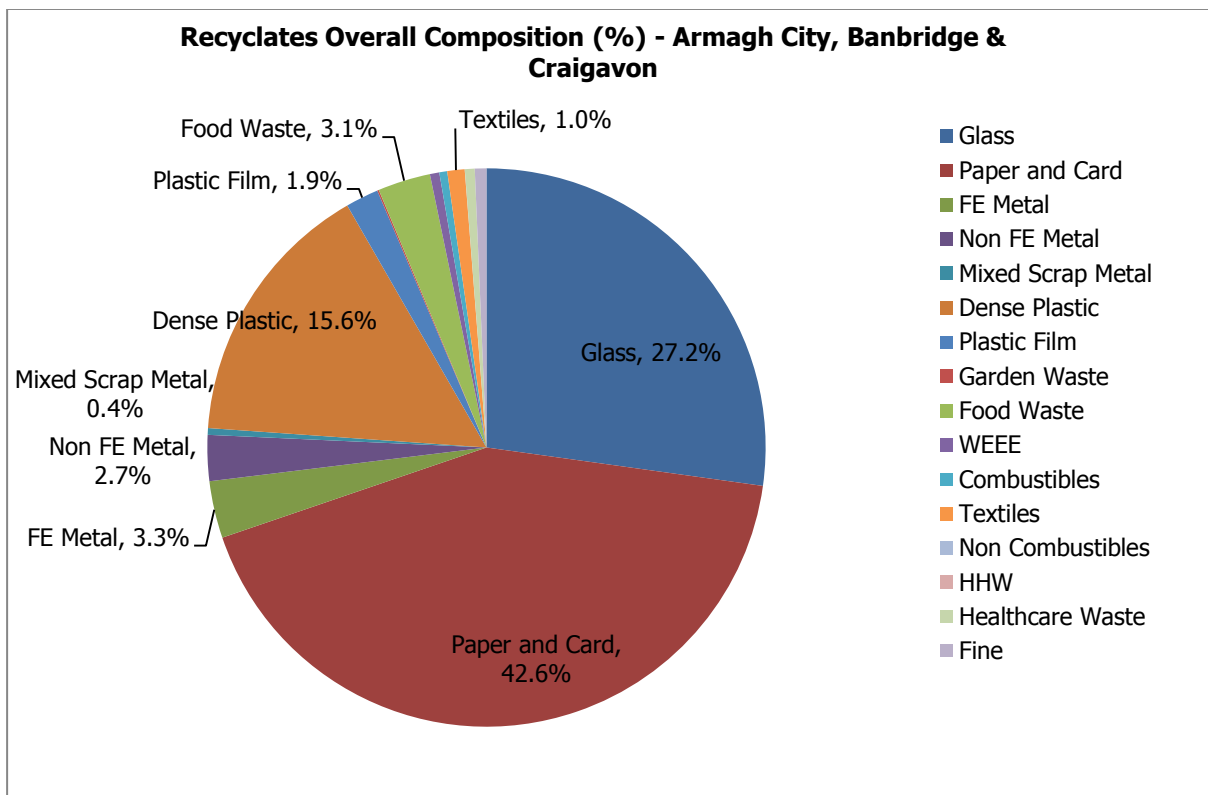
Figure 9 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Armagh City, Banbridge & Craigavon

- Garden Waste, 80.8%
- Food Waste, 15.9%
- Healthcare Waste, 1.4%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic

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Table 7 Phase 1 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Armagh City, Banbridge & Craigavon Borough Council					
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Food Composition (%)
Glass	6.6%	26.6%	48.2%	0.2%	0.0%
Paper and cardboard	14.2%	38.3%	33.3%	0.3%	0.0%
FE metal	1.9%	3.6%	5.7%	0.0%	0.0%
Non FE metal	1.7%	2.5%	2.7%	0.0%	0.0%
Mixed scrap metal	0.8%	0.4%	0.4%	0.0%	0.0%
Dense plastic	7.9%	17.3%	9.5%	0.2%	0.0%
Plastic film	7.8%	1.8%	0.0%	0.0%	0.0%
Garden waste	3.0%	0.0%	0.0%	79.5%	0.0%
Food wastes	30.4%	5.9%	0.1%	15.5%	100.0%
WEEE	0.9%	0.4%	0.0%	0.0%	0.0%
Misc. combustible	2.8%	0.9%	0.0%	0.6%	0.0%
Textiles & footwear	3.9%	0.5%	0.0%	0.2%	0.0%
Misc. non-combustible	4.1%	0.0%	0.0%	0.0%	0.0%
Hazardous wastes	0.2%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	11.4%	0.9%	0.0%	2.1%	0.0%
Fines (<10mm)	2.4%	0.7%	0.0%	1.2%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Table 8 Phase 2 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Armagh City, Banbridge & Craigavon Borough Council					
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Food Composition (%)
Glass	7.0%	18.6%	49.2%	0.0%	0.0%
Paper and cardboard	16.8%	50.9%	30.0%	0.2%	0.0%
FE metal	1.1%	2.1%	5.3%	0.0%	0.0%
Non FE metal	1.7%	2.7%	2.9%	0.1%	0.0%
Mixed scrap metal	0.8%	0.4%	0.0%	0.0%	0.0%
Dense plastic	10.0%	16.1%	12.5%	0.1%	0.0%
Plastic film	8.9%	2.8%	0.2%	0.0%	0.0%
Garden waste	0.6%	0.2%	0.0%	85.4%	0.0%
Food wastes	27.2%	1.7%	0.0%	12.8%	100.0%
WEEE	0.2%	0.9%	0.0%	0.0%	0.0%
Misc. combustible	2.3%	0.2%	0.0%	0.0%	0.0%
Textiles & footwear	5.7%	1.9%	0.0%	0.2%	0.0%
Misc. non-combustible	4.9%	0.0%	0.0%	0.7%	0.0%
Hazardous wastes	0.0%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	9.5%	0.5%	0.0%	0.6%	0.0%
Fines (<10mm)	3.1%	0.9%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

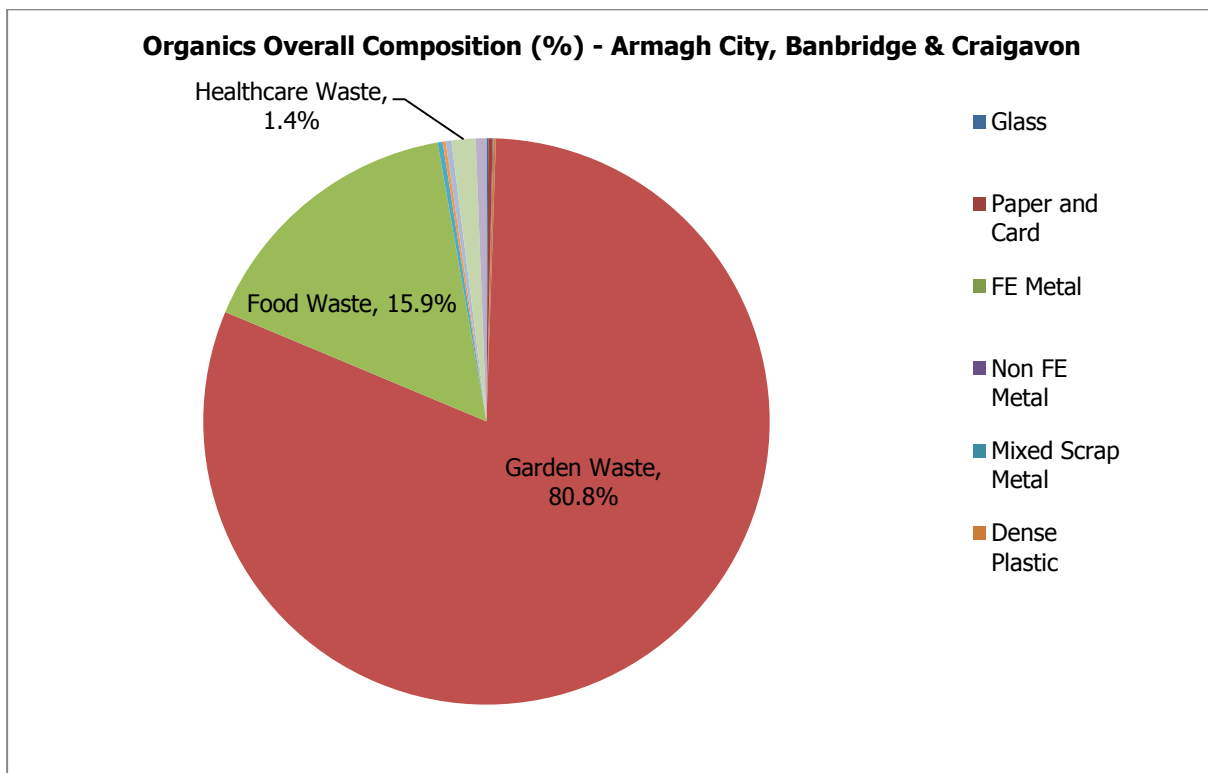**Table 9 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample**

Local Authority: Armagh City, Banbridge & Craigavon Borough Council					
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.6	0.7	2.2	0.0	0.0
Paper and cardboard	1.3	1.0	1.5	0.0	0.0
FE metal	0.2	0.1	0.3	0.0	0.0
Non FE metal	0.2	0.1	0.1	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0	0.0
Dense plastic	0.7	0.4	0.4	0.0	0.0
Plastic film	0.7	0.0	0.0	0.0	0.0
Garden waste	0.3	0.0	0.0	6.1	0.0
Food wastes	2.8	0.1	0.0	1.2	1.3
WEEE	0.1	0.0	0.0	0.0	0.0
Misc. combustible	0.3	0.0	0.0	0.0	0.0
Textiles & footwear	0.4	0.0	0.0	0.0	0.0
Misc. non-combustible	0.4	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0
Healthcare waste	1.1	0.0	0.0	0.2	0.0
Fines (<10mm)	0.2	0.0	0.0	0.1	0.0
Total	**9.2**	**2.5**	**4.5**	**7.7**	**1.3**

Table 10 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Armagh City, Banbridge & Craigavon Borough Council					
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.7	0.6	1.8	0.0	0.0
Paper and cardboard	1.6	1.7	1.1	0.0	0.0
FE metal	0.1	0.1	0.2	0.0	0.0
Non FE metal	0.2	0.1	0.1	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0	0.0
Dense plastic	0.9	0.6	0.5	0.0	0.0
Plastic film	0.8	0.1	0.0	0.0	0.0
Garden waste	0.1	0.0	0.0	3.9	0.0
Food wastes	2.5	0.1	0.0	0.6	1.9
WEEE	0.0	0.0	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.0	0.0
Textiles & footwear	0.5	0.1	0.0	0.0	0.0
Misc. non-combustible	0.5	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.0	0.0	0.0	0.0
Fines (<10mm)	0.3	0.0	0.0	0.0	0.0
Total	**9.3**	**3.4**	**3.6**	**4.6**	**1.9**

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5.0   Belfast

5.1   Residual waste composition

Residual waste sample in Phase 1 (2,476.6 kg) was composed of 39.7% (983.0 kg) target dry recycling, 0.5% (11.2 kg) garden waste and 23.2% (573.9 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (25.5%), paper and cardboard (16.1%) and healthcare waste (13.4%).

Residual waste in Phase 2 (2,925.4 kg) composed of 38.9% (1,137.7 kg) target dry recycling, 0.9% (26.8 kg) garden waste and 23.1% (677.0 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The main primary composition categories in the Phase 2 residual sample were food wastes (25.2%), paper and cardboard (18.8%) and dense plastic (11.0%).

5.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (323.6 kg) consisted of 89.1% (288.4 kg) of target material and 10.9% (35.2 kg) of non-target material. The main target materials were paper and cardboard (56.2%), dense plastic (25.3%) and non FE metal (7.4%). Non-target materials included food waste (4.0%), glass (1.1%) and plastic film (0.9%).

In Phase 2, the commingled recyclates sample (375.3 kg) contained 86.3% (323.8 kg) target material and 13.7% (51.4 kg) non-target material. Paper and cardboard (56.6%), dense plastic (20.3%) and non FE metal (7.2%) were the main target materials in the Phase 2 commingled recyclates sample. Non-target materials included glass (7.9%), plastic film (1.9%) and food waste (1.4%).

The Phase 1 source segregated recyclates sample (55.1 kg) contained 94.6 % (52.1 kg) of target material and 5.4% (3.0 kg) of non-target material. The prevalent target materials were glass (45.4%), paper and cardboard (30.6%) and dense plastic (12.7%). Non-target materials included plastic film (0.4%) and mixed scrap metal (0.2%).

In Phase 2, the proportion of target material in the source segregated recyclates sample (122.4 kg) increased to 97.9% (119.8 kg) and non-target material decreased to 2.1% (2.6 kg). Paper and cardboard (41.3%), glass (28.7%) and dense plastic (20.0%) were the dominant target materials. Non-target materials included food waste (0.3%), plastic film (0.3%) and miscellaneous combustibles (0.2%).

The Phase 1 separate glass collection sample (34.1 kg) consisted of 93.6% (31.9 kg) target material and 6.4% (2.2kg) of non-target material. Non-target material was composed of the secondary category non-packaging glass (2.2 kg). No kerbside glass boxes were presented in the sample area during Phase 2.

5.3   Organic waste composition

The Phase 1 commingled organics sample (827.1 kg) contained 96.1% (794.8 kg) target material and 3.9% (32.3 kg) non-target material. The main non-target materials were paper and cardboard (1.9%), dense plastic (0.6%) and plastic film (0.3%). The proportion of

target material in the Phase 2 commingled organics sample (466.2 kg) was 92.4% (430.8 kg) and non-target material 7.6% (35.4 kg). The prevalent non-target materials were paper and cardboard (1.1%) and plastic film (0.7%).

The Phase 1 separate food waste sample (26.7 kg) was composed of 99.3% (26.5 kg) of target material and 0.7% (0.2 kg) of non-target material. The 0.7% of non-target material consisted of paper and cardboard (0.5%) and dense plastic (0.2%).   In Phase 2, the proportion of target material in the food waste sample (98.2 kg) increased to 99.6% (97.8 kg) and non-target material decreased to 0.4% (0.4 kg).   Non-target materials included paper and cardboard (0.3%), dense plastic (0.1%) and plastic film (0.1%).

5.4   Overall waste composition

Figures 10-12 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
■ Food waste (25.4%)
■ Paper and cardboard (17.5%)
■ Healthcare waste (11.4%)

The prevalent primary categories in the combined recyclates composition were:
■ Paper and cardboard (51.2%)
■ Dense plastic (21.4%)
■ Glass (12.6%)

The prevalent primary categories in the combined organics composition were:
■ Food waste (57.0%)
■ Garden waste (40.6%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 11 and Table 12 and in kilogram per household per week in Table 13 and Table 14 below.

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Figure 10 Overall composition (%) of primary waste categories in residual stream sample
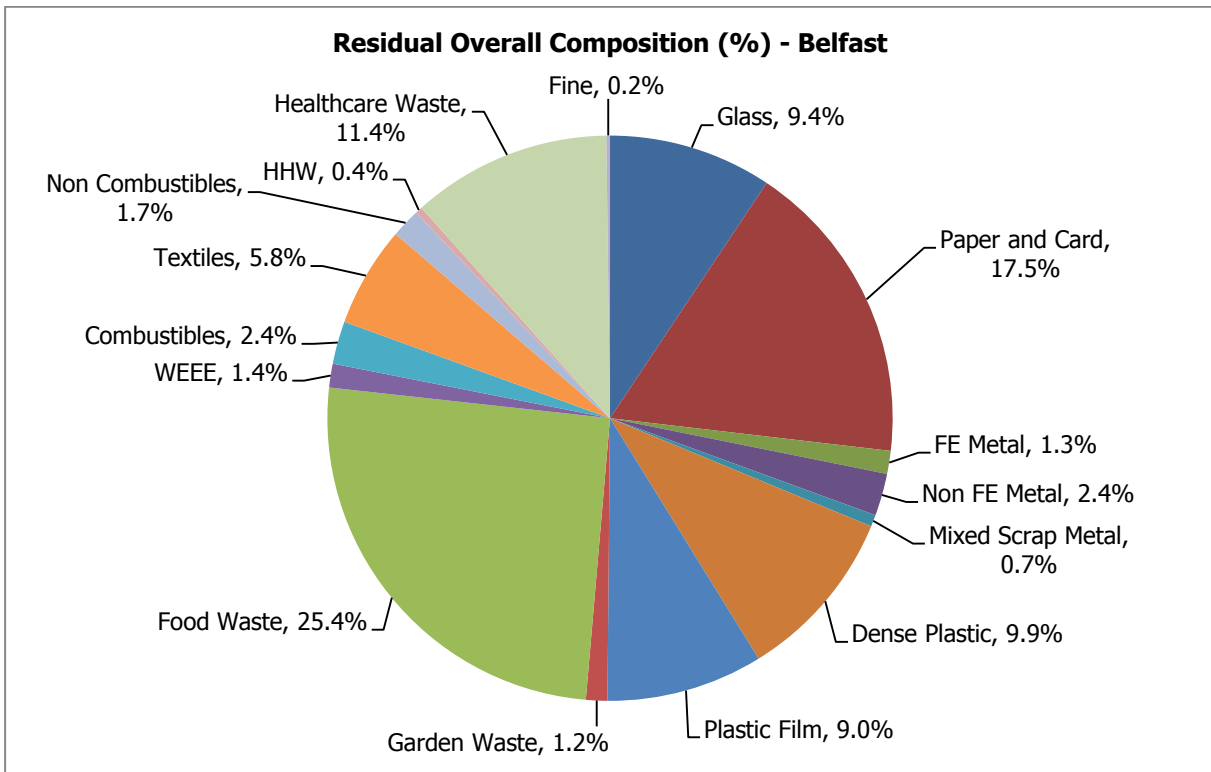
Figure 11 Overall composition (%) of primary waste categories in recyclates stream sample

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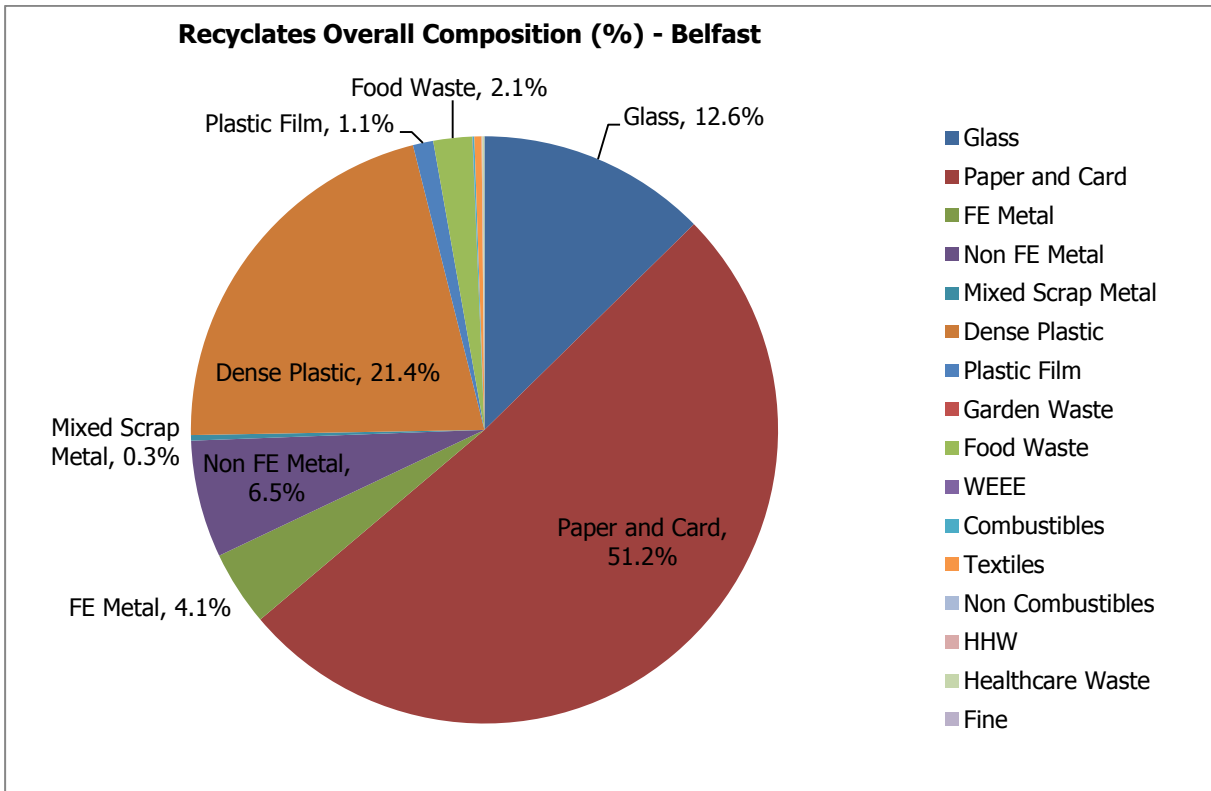
Figure 12 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Belfast

Paper and Card, 1.4%

Dense Plastic, 0.4%

Plastic Film, 0.4%

Garden Waste, 40.6%

Food Waste, 57.0%

- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic

Table 11 Phase 1 Composition (%) of primary waste categories in each waste stream sample

	Local Authority: Belfast City Council					
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Separate Glass Composition (%)	Commingled Organics Composition (%)	Separate Food Composition (%)
Glass	10.6%	1.1%	45.4%	100.0%	0.1%	0.0%
Paper and cardboard	16.1%	56.2%	30.6%	0.0%	1.9%	0.5%
FE metal	1.3%	3.9%	2.4%	0.0%	0.0%	0.0%
Non FE metal	2.4%	7.4%	5.2%	0.0%	0.1%	0.0%
Mixed scrap metal	0.6%	0.5%	0.2%	0.0%	0.0%	0.0%
Dense plastic	8.9%	25.3%	12.7%	0.0%	0.6%	0.2%
Plastic film	9.2%	0.9%	0.4%	0.0%	0.3%	0.0%
Garden waste	0.8%	0.0%	0.0%	0.0%	56.1%	0.0%
Food wastes	25.5%	4.0%	0.0%	0.0%	40.8%	99.3%
WEEE	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Misc. combustible	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%
Textiles & footwear	7.2%	0.3%	3.0%	0.0%	0.0%	0.0%
Misc. non-combustible	1.4%	0.0%	0.0%	0.0%	0.1%	0.0%
Hazardous wastes	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	13.4%	0.2%	0.0%	0.0%	0.0%	0.0%
Fines (<10mm)	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 12 Phase 2 Composition (%) of primary waste categories in each waste stream sample

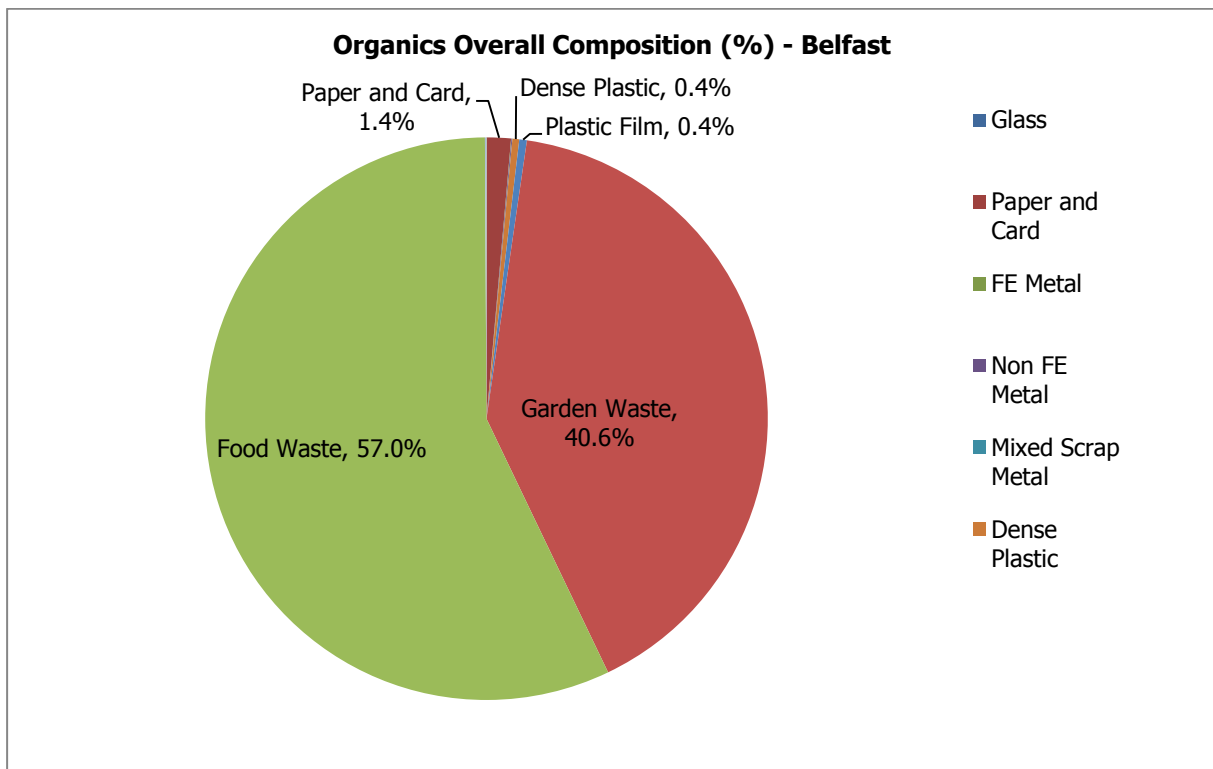| Local Authority: Belfast City Council					
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Food Composition (%)
Glass	8.1%	7.9%	28.7%	0.0%	0.0%
Paper and cardboard	18.8%	56.6%	41.3%	1.1%	0.3%
FE metal	1.3%	4.3%	5.6%	0.0%	0.0%
Non FE metal	2.4%	7.2%	3.5%	0.1%	0.0%
Mixed scrap metal	0.8%	0.3%	0.0%	0.0%	0.0%
Dense plastic	11.0%	20.3%	20.0%	0.3%	0.1%
Plastic film	8.7%	1.9%	0.3%	0.7%	0.1%
Garden waste	1.7%	0.0%	0.0%	34.9%	0.0%
Food wastes	25.2%	1.4%	0.3%	62.8%	99.6%
WEEE	1.8%	0.0%	0.0%	0.0%	0.0%
Misc. combustible	3.5%	0.0%	0.2%	0.0%	0.0%
Textiles & footwear	4.3%	0.0%	0.0%	0.0%	0.0%
Misc. non-combustible	2.0%	0.0%	0.0%	0.0%	0.0%
Hazardous wastes	0.6%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	9.5%	0.0%	0.1%	0.1%	0.0%
Fines (<10mm)	0.2%	0.0%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

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Table 13 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Separate Glass Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Local Authority: Belfast City Council						
Glass	0.9	0.0	0.4	0.7	0.0	0.0
Paper and cardboard	1.3	1.0	0.3	0.0	0.1	0.0
FE metal	0.1	0.1	0.0	0.0	0.0	0.0
Non FE metal	0.2	0.1	0.0	0.0	0.0	0.0
Mixed scrap metal	0.0	0.0	0.0	0.0	0.0	0.0
Dense plastic	0.7	0.4	0.1	0.0	0.0	0.0
Plastic film	0.8	0.0	0.0	0.0	0.0	0.0
Garden waste	0.1	0.0	0.0	0.0	2.5	0.0
Food wastes	2.1	0.1	0.0	0.0	1.8	0.5
WEEE	0.1	0.0	0.0	0.0	0.0	0.0
Misc. combustible	0.1	0.0	0.0	0.0	0.0	0.0
Textiles & footwear	0.6	0.0	0.0	0.0	0.0	0.0
Misc. non-combustible	0.1	0.0	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0	0.0
Healthcare waste	1.1	0.0	0.0	0.0	0.0	0.0
Fines (<10mm)	0.0	0.0	0.0	0.0	0.0	0.0
Total	**8.3**	**1.8**	**0.9**	**0.7**	**4.5**	**0.5**

Table 14 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Belfast City Council					
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.8	0.2	0.5	0.0	0.0
Paper and cardboard	1.8	1.3	0.7	0.0	0.0
FE metal	0.1	0.1	0.1	0.0	0.0
Non FE metal	0.2	0.2	0.1	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0	0.0
Dense plastic	1.1	0.5	0.4	0.0	0.0
Plastic film	0.9	0.0	0.0	0.0	0.0
Garden waste	0.2	0.0	0.0	1.0	0.0
Food wastes	2.5	0.0	0.0	1.8	1.4
WEEE	0.2	0.0	0.0	0.0	0.0
Misc. combustible	0.3	0.0	0.0	0.0	0.0
Textiles & footwear	0.4	0.0	0.0	0.0	0.0
Misc. non-combustible	0.2	0.0	0.0	0.0	0.0
Hazardous wastes	0.1	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.0	0.0	0.0	0.0
Fines (<10mm)	0.0	0.0	0.0	0.0	0.0
Total	**9.8**	**2.3**	**1.8**	**2.8**	**1.4**

6.0   Causeway Coast and Glens

6.1   Residual waste composition

Residual waste sample in Phase 1 (3,339.8 kg) was composed of 20.4% (682.5 kg) target dry recycling, 0.9% (30.9 kg) garden waste and 35.5% (1,185.3 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food wastes (37.1%), paper and cardboard (11.5%), and plastic film (10.6%).

Residual waste in Phase 2 (3,105.2 kg) composed of 21.0% (653.0 kg) target dry recycling, 4.2% (130.4 kg) garden waste and 28.8% (895.0 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 2 residual sample were food wastes (30.3%), paper and cardboard (14.0%) and dense plastic (9.1%).

6.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (928.3 kg) consisted of 86.4% (801.7 kg) of target material and 13.6% (126.6 kg) of non-target material. The dominant target materials were paper and cardboard (45.8%), glass (17.6%) and dense plastic (16.5%). Non-target materials included food waste (3.4%), plastic film (1.6%) and healthcare waste (1.5%).

In Phase 2, the commingled recyclates sample (909.3 kg) consisted of 75.8% (689.3 kg) of target material and 24.2% (220.0 kg) of non-target material. The key target materials included paper and cardboard (43.7%), dense plastic (17.1%) and glass (15.4%). Non-target materials included food waste (4.6%), plastic film (2.2%), healthcare waste (2.1%) and textiles and footwear (2.0%).

6.3   Organic waste composition

The Phase 1 commingled organics sample (313.0 kg) contained 84.7% (265.1 kg) of target material and 15.3% (48.0 kg) of non-target material. Non-target materials included plastic film (1.4%), textiles and footwear (0.9%) and dense plastic (0.8%). In Phase 2, the proportion of target material in the commingled organics sample (478.7 kg) increased to 97.0% (464.1 kg) and non-target material decreased to 3.0% (14.6 kg). Non-target materials included miscellaneous combustibles (2.3%), plastic film (0.3%) and paper and cardboard (0.1%).

The separate garden waste collection service in Causeway Coast and Glens Borough Council was suspended between November and mid-March therefore garden waste was not sampled during Phase 1. The separate garden sample in Phase 2 was uplifted by the council and weighed 40.0 kg.

The Phase 1 separate food waste sample (56.2 kg) was composed of 98.6% (55.4 kg) of target material and 1.4% (0.8 kg) of non-target material. The 1.4% of non-target material consisted of plastic film (1.0%) and garden waste (0.4%). In Phase 2 the proportion of target material in the separate food waste sample (59.2 kg) increased to 99.0% (58.6 kg) and non-target material decreased to 1.0% (0.6 kg). Non-target material consisted of

garden waste (0.7%), paper and cardboard (0.1%), dense plastic (0.1%) and non FE metal (0.1%).

6.4   Overall waste composition

Figures 13-15 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (33.7%)
- Paper and cardboard (12.8%)
- Plastic film (9.4%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (44.8%)
- Dense plastic (16.8%)
- Glass (16.5%)

The prevalent primary categories in the combined organics composition were:
- Garden waste (61.1%)
- Food waste (35.8%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 15 and Table 16 and in kilogram per household per week in Table 17 and Table 18 below.

Figure 13 Overall composition (%) of primary waste categories in residual stream sample
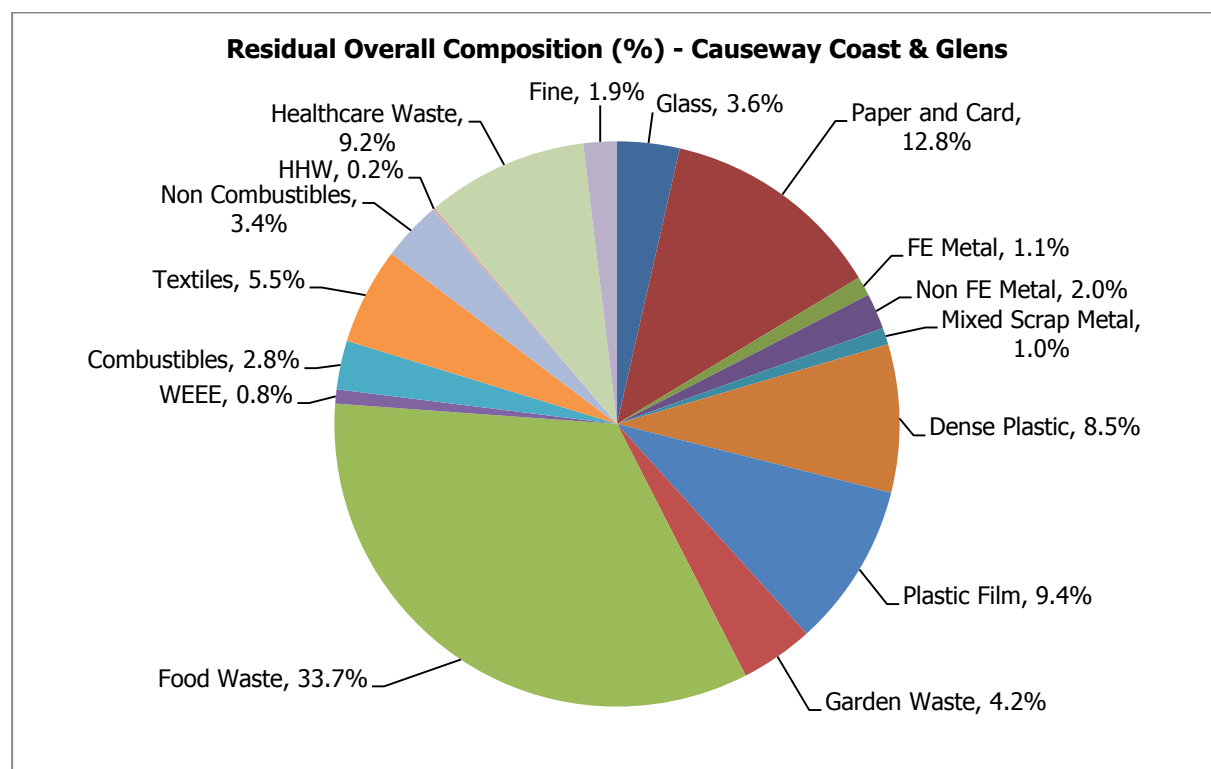
Figure 14 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Causeway Coast & Glens

- Glass, 16.5%
- Paper and Card, 44.8%
- Dense Plastic, 16.8%
- FE Metal, 4.3%
- Non FE Metal, 3.8%
- Mixed Scrap Metal, 0.6%
- Plastic Film, 1.9%
- Food Waste, 4.0%
- Textiles, 1.6%
- Healthcare Waste, 1.8%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine
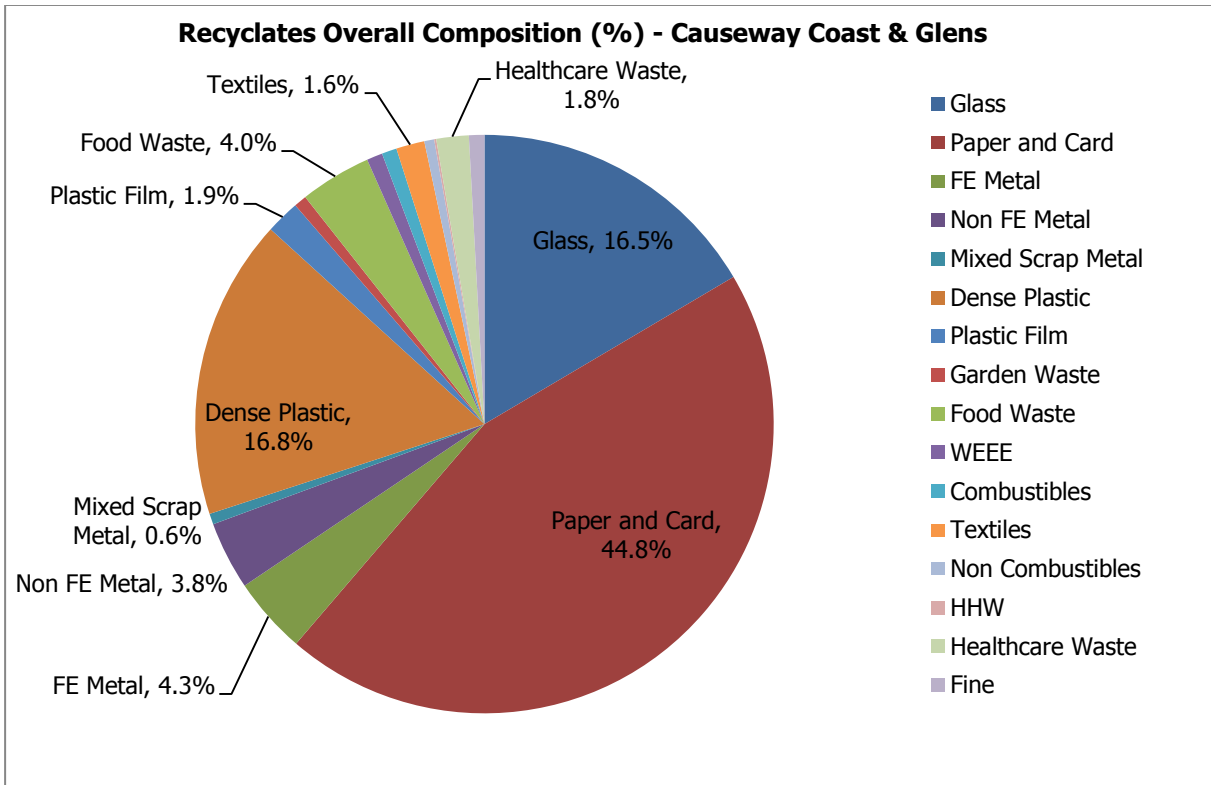
Figure 15 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Causeway Coast & Glens

- Garden Waste, 61.1%
- Food Waste, 35.8%
- Dense Plastic, 0.3%
- Plastic Film, 0.8%
- Combustibles, 1.1%

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine

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Table 15 Phase 1 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Causeway Coast & Glens Borough Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Food Composition (%)
Glass	3.9%	17.6%	0.0%	0.0%
Paper and cardboard	11.5%	45.8%	0.4%	0.0%
FE metal	1.2%	4.7%	0.0%	0.0%
Non FE metal	2.1%	4.8%	0.2%	0.0%
Mixed scrap metal	0.8%	0.3%	0.3%	0.0%
Dense plastic	7.8%	16.5%	0.8%	0.0%
Plastic film	10.6%	1.6%	1.4%	1.0%
Garden waste	2.0%	0.4%	67.7%	0.4%
Food wastes	37.1%	3.4%	27.8%	98.6%
WEEE	0.6%	1.0%	0.0%	0.0%
Misc. combustible	1.4%	0.4%	0.4%	0.0%
Textiles & footwear	4.0%	1.2%	0.9%	0.0%
Misc. non-combustible	5.0%	0.1%	0.0%	0.0%
Hazardous wastes	0.1%	0.1%	0.0%	0.0%
Healthcare waste	9.5%	1.5%	0.2%	0.0%
Fines (<10mm)	2.4%	0.6%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

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Table 16 Phase 2 Composition (%) of primary waste categories in each waste stream sample

Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Commingled Organics Composition (%)	Separate Garden Composition (%)	Separate Food Composition (%)
	Local Authority: Causeway Coast & Glens Borough Council				
Glass	3.3%	15.4%	0.0%	0.0%	0.0%
Paper and cardboard	14.0%	43.7%	0.1%	0.0%	0.1%
FE metal	1.0%	3.9%	0.0%	0.0%	0.0%
Non FE metal	2.0%	2.8%	0.0%	0.0%	0.1%
Mixed scrap metal	1.2%	0.9%	0.0%	0.0%	0.0%
Dense plastic	9.1%	17.1%	0.0%	0.0%	0.1%
Plastic film	8.1%	2.2%	0.3%	0.0%	0.0%
Garden waste	6.3%	1.0%	78.8%	100.0%	0.7%
Food wastes	30.3%	4.6%	18.3%	0.0%	99.0%
WEEE	1.0%	0.8%	0.0%	0.0%	0.0%
Misc. combustible	4.2%	1.3%	2.3%	0.0%	0.0%
Textiles & footwear	7.1%	2.0%	0.0%	0.0%	0.0%
Misc. non-combustible	1.8%	1.0%	0.0%	0.0%	0.0%
Hazardous wastes	0.2%	0.1%	0.0%	0.0%	0.0%
Healthcare waste	9.0%	2.1%	0.0%	0.0%	0.0%
Fines (<10mm)	1.4%	1.2%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

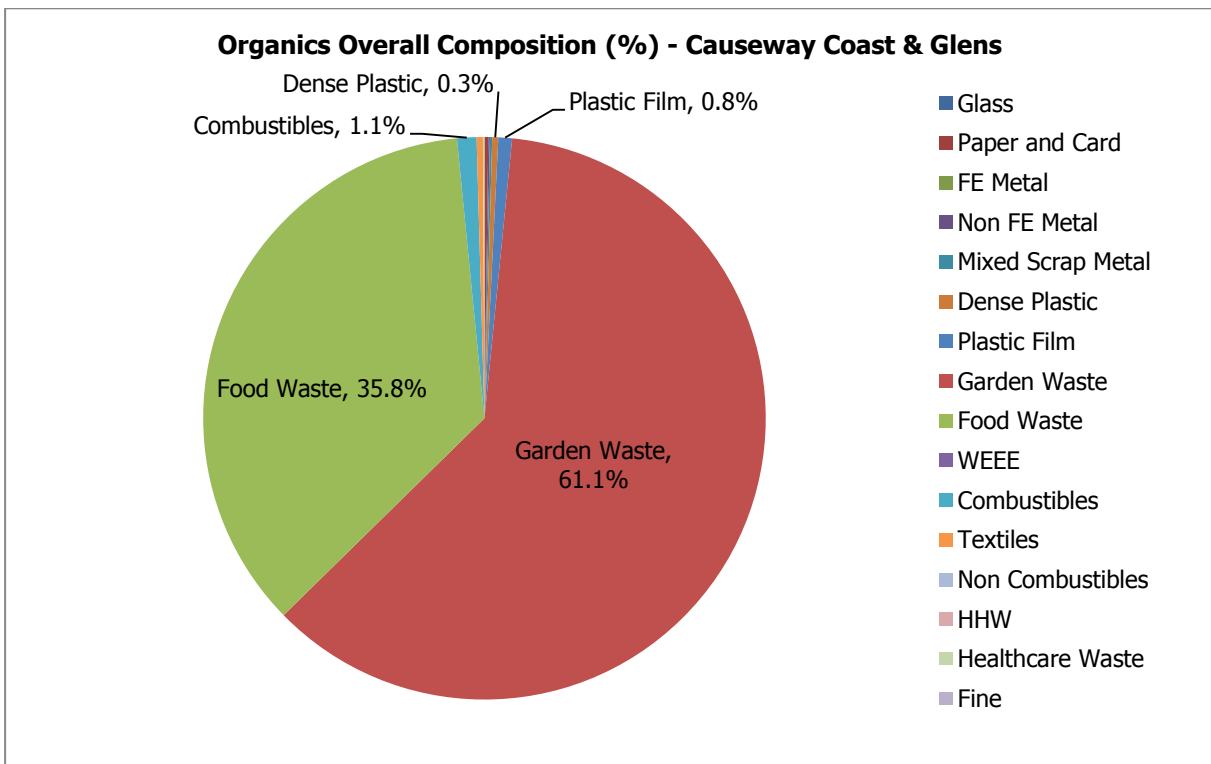This document is uncontrolled if printed

Table 17 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Causeway Coast & Glens Borough Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.4	0.5	0.0	0.0
Paper and cardboard	1.3	1.4	0.0	0.0
FE metal	0.1	0.1	0.0	0.0
Non FE metal	0.2	0.1	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0
Dense plastic	0.9	0.5	0.0	0.0
Plastic film	1.2	0.0	0.0	0.0
Garden waste	0.2	0.0	1.8	0.0
Food wastes	4.1	0.1	0.7	1.8
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.0
Textiles & footwear	0.4	0.0	0.0	0.0
Misc. non-combustible	0.6	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.1	0.0	0.0	0.0
Fines (<10mm)	0.3	0.0	0.0	0.0
Total	**11.1**	**3.1**	**2.6**	**1.9**

Table 18 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Causeway Coast & Glens Borough Council					
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)	Separate Garden Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.3	0.5	0.0	0.0	0.0
Paper and cardboard	1.5	1.3	0.0	0.0	0.0
FE metal	0.1	0.1	0.0	0.0	0.0
Non FE metal	0.2	0.1	0.0	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0	0.0
Dense plastic	0.9	0.5	0.0	0.0	0.0
Plastic film	0.8	0.1	0.0	0.0	0.0
Garden waste	0.7	0.0	3.1	1.3	0.0
Food wastes	3.1	0.1	0.7	0.0	2.0
WEEE	0.1	0.0	0.0	0.0	0.0
Misc. combustible	0.4	0.0	0.1	0.0	0.0
Textiles & footwear	0.7	0.1	0.0	0.0	0.0
Misc. non-combustible	0.2	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.1	0.0	0.0	0.0
Fines (<10mm)	0.1	0.0	0.0	0.0	0.0
Total	**10.4**	**3.0**	**4.0**	**1.3**	**2.0**

7.0   Derry and Strabane

7.1   Residual waste composition

Residual waste sample in Phase 1 (3,146.6 kg) was composed of 26.8% (843.0 kg) target dry recycling, 6.0% (188.3 kg) garden waste and 26.7% (841.2 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (27.4%), paper and cardboard (12.5%), healthcare waste (11.9%) and plastic film (11.6%).

Residual waste in Phase 2 (2,591.8 kg) composed of 29.0% (751.1 kg) target dry recycling, 1.0% (26.1 kg) garden waste and 27.6% (715.7 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 2 residual sample were food waste (29.0%), paper and cardboard (16.9%), healthcare waste (12.9%) and plastic film (11.3%).

7.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (1,306.5 kg) consisted of 86.0% (1,123.7 kg) of target material and 14.0% (182.8 kg) of non-target material. The prevalent target materials included paper and cardboard (46.9%), dense plastic (17.3%) and glass (15.4%). Non-target materials included healthcare waste (2.5%), plastic film (2.4%), food waste (1.4%) and mixed scrap metal (1.4%).

In Phase 2, the commingled recyclates sample (1,002.0 kg) consisted of 85.4% (856.1 kg) of target material and 14.6% (145.9 kg) of non-target material. The main target materials were paper and cardboard (46.7%), glass (19.0%) and dense plastic (15.0%). Non-target materials included food waste (3.0%), plastic film (2.9%) and garden waste (1.2%).

7.3   Organic waste composition

The Phase 1 separate garden sample (735.2 kg) contained 96.8% (711.4 kg) of target material and 3.2% (23.8 kg) non-target material. The dominant non-target materials were paper and cardboard (0.8%) and food waste (0.4%). The Phase 2 separate garden sample (279.9 kg) had 92.9% (260.0 kg) of target material and 7.1% (19.9 kg) non-target material. Paper and cardboard (2.4%) and miscellaneous combustibles (0.6%) were the main non-target materials.

The Phase 1 separate food waste sample (35.3 kg) consisted of 100.0% (35.3 kg) of target material and 0.0% of non-target material. Between Phase 1 and Phase 2, Derry City and Strabane District Council extended its separate food waste collection service. To account for this, the separate food waste sample area was increased from 54 households to 150 households. In Phase 2, the proportion of target material in the separate food waste sample (221.1 kg) was 99.8% (220.6 kg) and non-target material was 0.2% (0.5 kg). Non-target material included glass (0.1%).

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7.4   Overall waste composition

Figures 16-18 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (28.2%)
- Paper and cardboard (14.7%)
- Healthcare waste (12.4%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (46.8%)
- Glass (17.2%)
- Dense plastic (16.1%)

The prevalent primary categories in the combined organics composition were:
- Food waste (55.2%)
- Garden waste (43.8%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 19 and Table 20 and in kilogram per household per week in Table 21 and Table 22 below.

Figure 16 Overall composition (%) of primary waste categories in residual stream sample
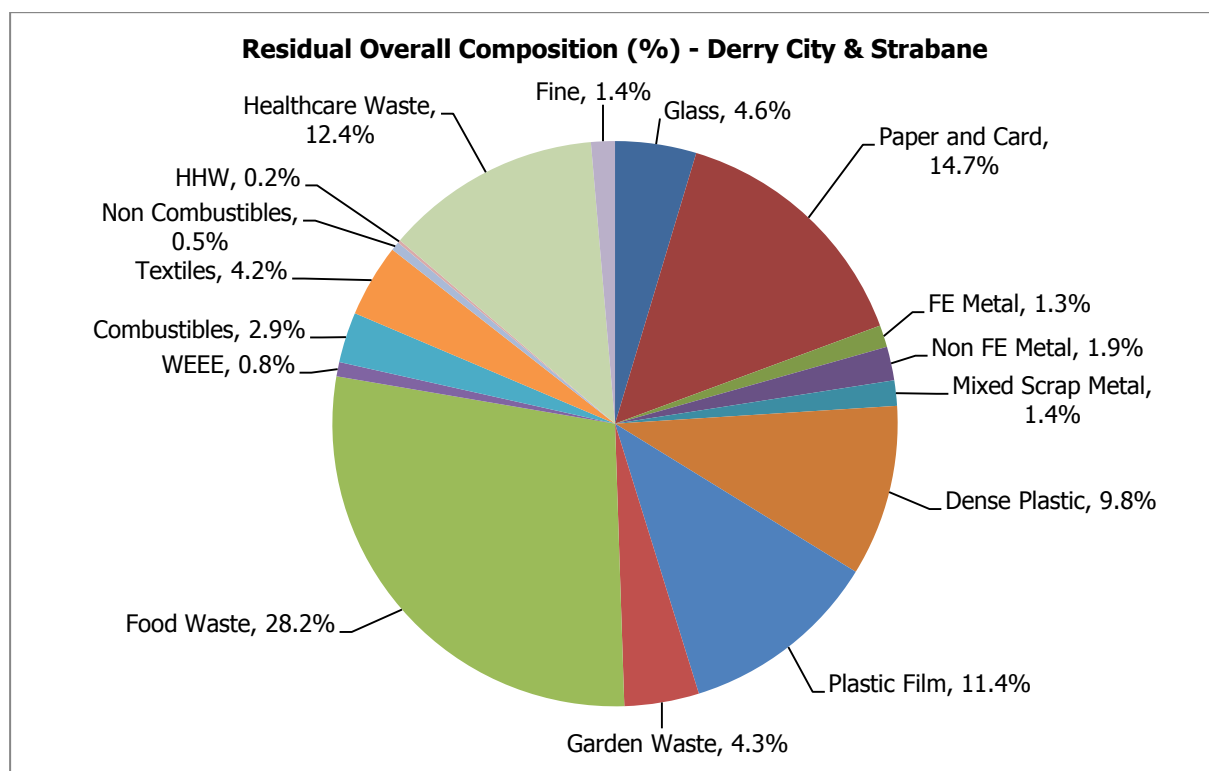
Figure 17 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Derry City & Strabane

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine
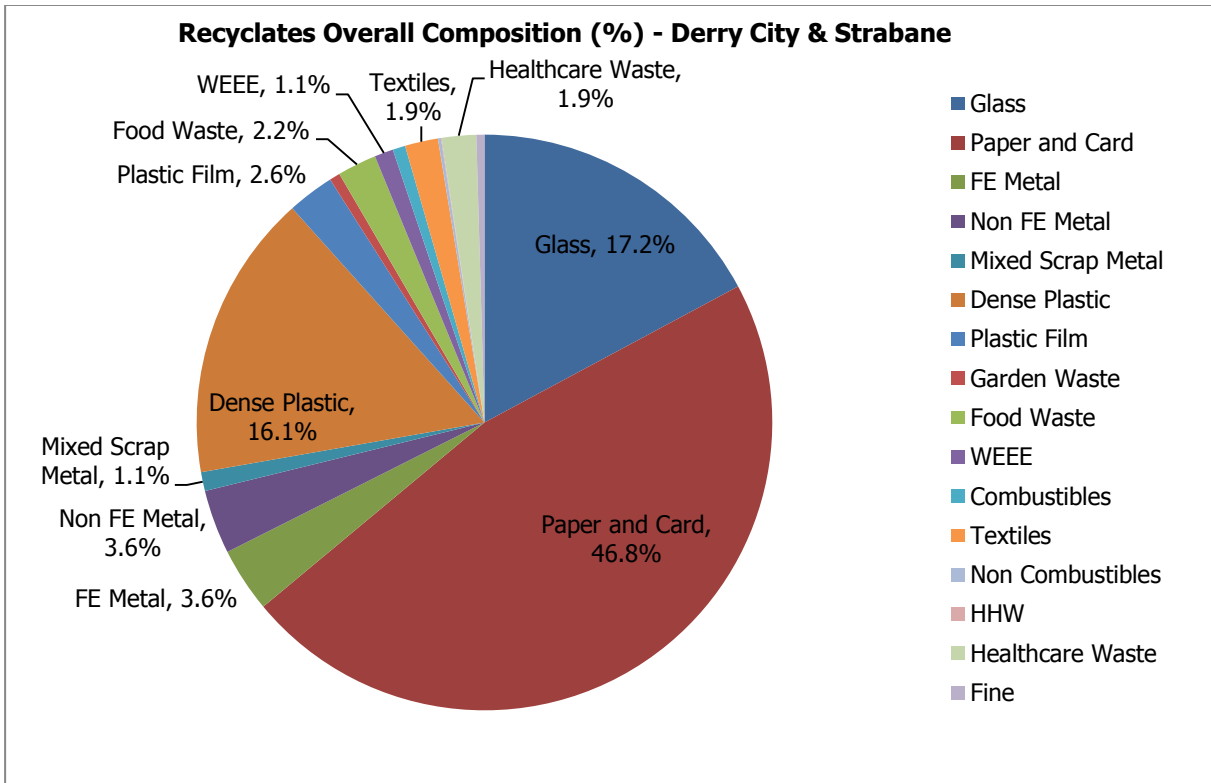
Figure 18 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Derry City & Strabane

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine

Table 19 Phase 1 Composition (%) of primary waste categories in each waste stream sample

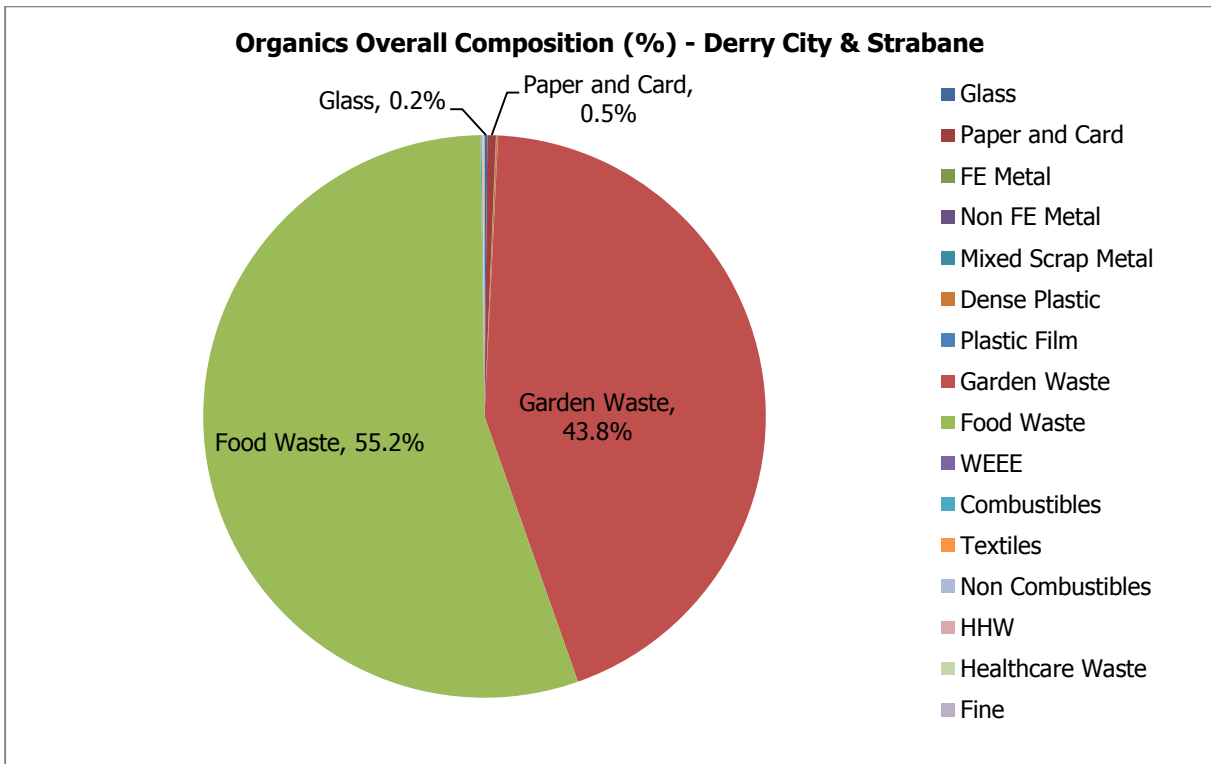| Local Authority: Derry City & Strabane District Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Separate Garden Composition (%)	Separate Food Composition (%)
Glass	4.5%	15.4%	0.3%	0.0%
Paper and cardboard	12.5%	46.9%	0.8%	0.0%
FE metal	1.3%	3.9%	0.0%	0.0%
Non FE metal	1.7%	3.4%	0.0%	0.0%
Mixed scrap metal	2.0%	1.4%	0.0%	0.0%
Dense plastic	9.7%	17.3%	0.2%	0.0%
Plastic film	11.6%	2.4%	0.0%	0.0%
Garden waste	7.5%	0.0%	97.7%	0.0%
Food wastes	27.4%	1.4%	0.4%	100.0%
WEEE	1.1%	1.3%	0.0%	0.0%
Misc. combustible	2.6%	1.3%	0.1%	0.0%
Textiles & footwear	4.9%	2.1%	0.1%	0.0%
Misc. non-combustible	0.7%	0.2%	0.0%	0.0%
Hazardous wastes	0.1%	0.0%	0.0%	0.0%
Healthcare waste	11.9%	2.5%	0.1%	0.0%
Fines (<10mm)	0.3%	0.6%	0.1%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

Table 20 Phase 2 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Derry City & Strabane District Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Separate Garden Composition (%)	Separate Food Composition (%)
Glass	4.8%	19.0%	0.2%	0.1%
Paper and cardboard	16.9%	46.7%	2.4%	0.0%
FE metal	1.3%	3.3%	0.1%	0.0%
Non FE metal	2.1%	3.8%	0.1%	0.0%
Mixed scrap metal	0.9%	0.8%	0.0%	0.0%
Dense plastic	9.9%	15.0%	0.2%	0.0%
Plastic film	11.3%	2.9%	0.1%	0.0%
Garden waste	1.0%	1.2%	96.2%	0.0%
Food wastes	29.0%	3.0%	0.1%	99.9%
WEEE	0.5%	0.8%	0.0%	0.0%
Misc. combustible	3.1%	0.1%	0.6%	0.0%
Textiles & footwear	3.5%	1.6%	0.0%	0.0%
Misc. non-combustible	0.3%	0.1%	0.0%	0.0%
Hazardous wastes	0.2%	0.1%	0.0%	0.0%
Healthcare waste	12.9%	1.3%	0.0%	0.0%
Fines (<10mm)	2.4%	0.3%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

Table 21 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Derry City & Strabane District Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Separate Garden Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.5	0.7	0.0	0.0
Paper and cardboard	1.3	2.0	0.1	0.0
FE metal	0.1	0.2	0.0	0.0
Non FE metal	0.2	0.1	0.0	0.0
Mixed scrap metal	0.2	0.1	0.0	0.0
Dense plastic	1.0	0.8	0.0	0.0
Plastic film	1.2	0.1	0.0	0.0
Garden waste	0.8	0.0	9.5	0.0
Food wastes	2.9	0.1	0.0	0.7
WEEE	0.1	0.1	0.0	0.0
Misc. combustible	0.3	0.1	0.0	0.0
Textiles & footwear	0.5	0.1	0.0	0.0
Misc. non-combustible	0.1	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.3	0.1	0.0	0.0
Fines (<10mm)	0.0	0.0	0.0	0.0
Total	**10.5**	**4.4**	**9.7**	**0.7**

Table 22 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Derry City & Strabane District Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Separate Garden Composition (kg/hhd/wk)	Separate Food Composition (kg/hhd/wk)
Glass	0.4	0.6	0.0	0.0
Paper and cardboard	1.5	1.6	0.0	0.0
FE metal	0.1	0.1	0.0	0.0
Non FE metal	0.2	0.1	0.0	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0
Dense plastic	0.9	0.5	0.0	0.0
Plastic film	1.0	0.1	0.0	0.0
Garden waste	0.1	0.0	1.5	0.0
Food wastes	2.5	0.1	0.0	1.5
WEEE	0.0	0.0	0.0	0.0
Misc. combustible	0.3	0.0	0.0	0.0
Textiles & footwear	0.3	0.1	0.0	0.0
Misc. non-combustible	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.1	0.0	0.0	0.0
Fines (<10mm)	0.2	0.0	0.0	0.0
Total	**8.6**	**3.3**	**1.6**	**1.5**

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8.0   Fermanagh and Omagh

8.1   Residual waste composition

Residual waste sample in Phase 1 (3,901.5 kg) was composed of 13.8% (538.6 kg) target dry recycling, 3.0% (116.3 kg) garden waste and 36.4% (1,422.0 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (37.9%), paper and cardboard (12.6%) and healthcare waste (7.2%).

Residual waste in Phase 2 (3,349.6 kg) composed of 15.6% (522.4 kg) target dry recycling, 0.9% (31.1 kg) garden waste and 24.2% (812.2 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The main primary composition categories in the Phase 2 residual sample were food wastes (25.0%), healthcare waste (12.5%) and paper and cardboard (11.6%).

8.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (1,045.3 kg) consisted of 77.8% (813.3 kg) of target material and 22.2% (232.0 kg) of non-target material. Target materials included paper and cardboard (51.0%), dense plastic (16.3%) and glass (11.2%). Food waste (4.8%) and plastic film (2.5%) were the main non-target materials present in Phase 1 commingled recyclates sample.

In Phase 2 there was an incident on site which resulted in one of the mixed dry recyclables samples from Fermanagh and Omagh Council being disposed before hand-sorting had occurred. This sample originated from 87 households in the Belleek area. The weight of this sample was known. Therefore we have used this weight and based the Council's Phase 2 results on the sorted data from the Trillick area sample (63 households) combined with scaled up data from the sample composition in Phase 1. In Phase 2, the proportion of target material in the commingled recyclates sample (1,175.2 kg) increased to 78.9% (926.7 kg) and non-target material decreased to 21.1% (248.5 kg) of non-target material. The dominant target materials included paper and cardboard (52.7%), dense plastic (16.0%) and glass (10.8%). Food waste (4.1%), plastic film (2.6%) and textiles and footwear (2.2%) were the key non-target materials found in the Phase 2 commingled recyclates sample.

8.3   Organic waste composition

The Phase 1 separate food waste sample (65.9 kg) consisted of 96.8% (63.8 kg) of target material and 3.2% (2.1 kg) of non-target material. Garden waste (2.9%) and paper and cardboard (0.4%) were the non-target materials in the Phase 1 separate food waste sample.

Between Phase 1 and Phase 2, Fermanagh and Omagh District Council extended its separate food waste collection service to rural households in the council area. To account for this, the separate food waste sample area was increased from 87 households to 150 households. Target materials in the Phase 2 separate food waste sample (402.9 kg) increased to 99.9% (402.5 kg) and non-target materials decreased to 0.1% (0.5 kg). The 0.1% of non-target material was composed of the secondary category non-recyclable paper.

8.4   Overall waste composition

Figures 19-21 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (31.5%)
- Paper and cardboard (12.1%)
- Healthcare waste (9.8%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (51.9%)
- Dense plastic (16.2%)
- Glass (11.0%)

The prevalent primary categories in the combined organics composition were:
- Food waste (98.3%)
- Garden waste (1.4%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 23 and in kilogram per household per week in Table 24 below.

Figure 19 Overall composition (%) of primary waste categories in residual stream sample
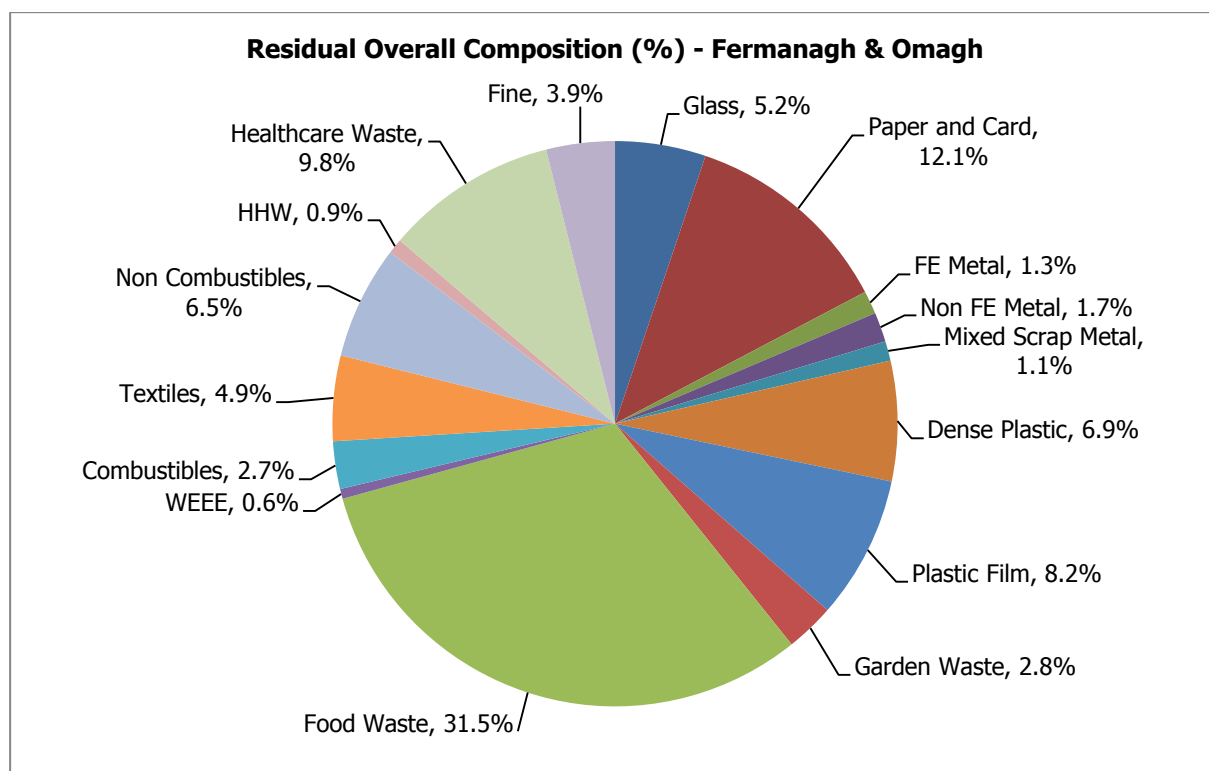
Figure 20 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Fermanagh & Omagh

Textiles, 1.6%
Combustibles, 1.5%
Food Waste, 4.5%
Plastic Film, 2.5%
Glass, 11.0%
Dense Plastic, 16.2%
Mixed Scrap Metal, 1.6%
Non FE Metal, 1.9%
FE Metal, 4.6%
Paper and Card, 51.9%

- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine
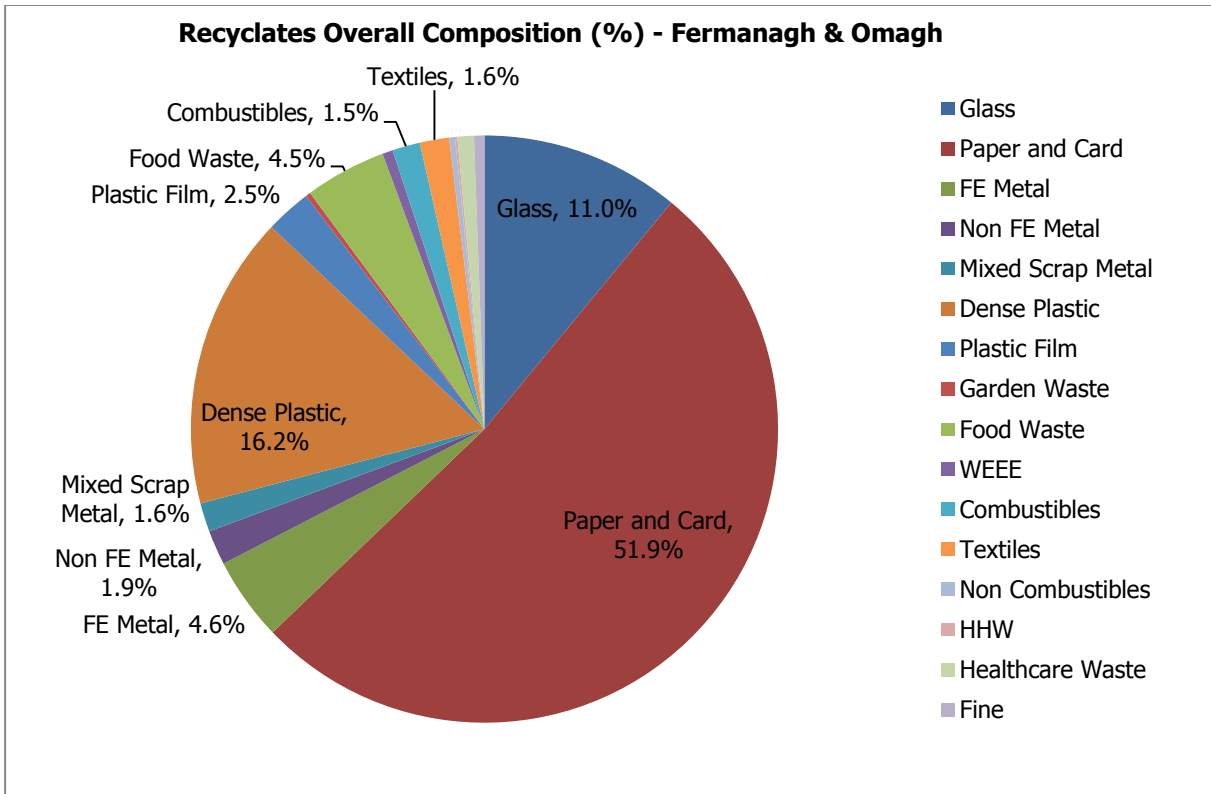
Figure 21 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Fermanagh & Omagh

Paper and Card, 0.2%
Garden Waste, 1.4%
Food Waste, 98.3%

- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine

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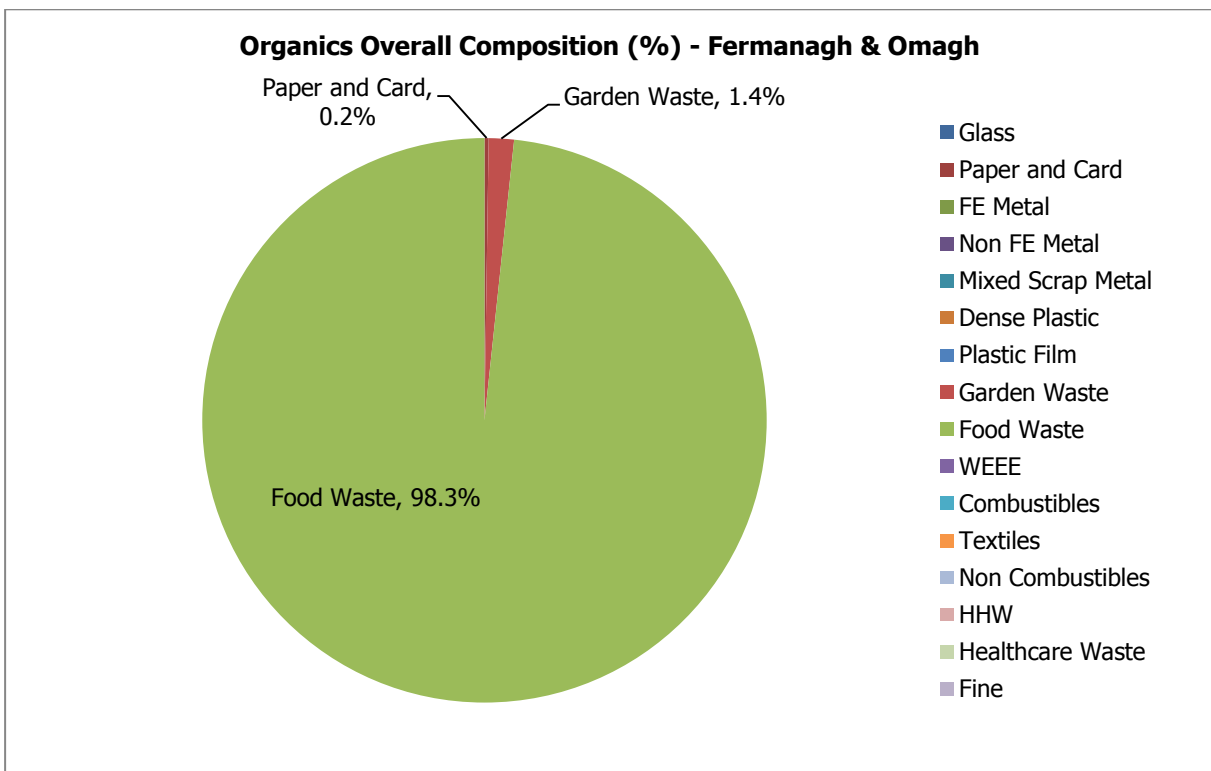
Table 23 Phase 1 and Phase 2 Composition (%) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (%)	Phase 2 Residual Composition (%)	Phase 1 Commingled Recyclates Composition (%)	Phase 2 Commingled Recyclates Composition (%)	Phase 1 Separate Food Composition (%)	Phase 2 Separate Food Composition (%)
Glass	4.8%	5.6%	11.2%	10.8%	0.0%	0.0%
Paper and cardboard	12.6%	11.6%	51.0%	52.7%	0.4%	0.1%
FE metal	1.1%	1.5%	4.7%	4.5%	0.0%	0.0%
Non FE metal	1.7%	1.7%	1.8%	2.0%	0.0%	0.0%
Mixed scrap metal	1.2%	1.1%	1.7%	1.4%	0.0%	0.0%
Dense plastic	5.8%	7.9%	16.3%	16.0%	0.0%	0.0%
Plastic film	6.7%	9.7%	2.5%	2.6%	0.0%	0.0%
Garden waste	3.3%	2.3%	0.3%	0.3%	2.9%	0.0%
Food wastes	37.9%	25.0%	4.8%	4.1%	96.8%	99.9%
WEEE	0.5%	0.6%	0.6%	0.6%	0.0%	0.0%
Misc. combustible	3.1%	2.4%	1.7%	1.3%	0.0%	0.0%
Textiles & footwear	5.2%	4.6%	1.1%	2.2%	0.0%	0.0%
Misc. non-combustible	5.5%	7.5%	0.3%	0.3%	0.0%	0.0%
Hazardous wastes	0.3%	1.4%	0.2%	0.0%	0.0%	0.0%
Healthcare waste	7.2%	12.5%	0.9%	0.9%	0.0%	0.0%
Fines (<10mm)	3.2%	4.6%	0.7%	0.4%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

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Table 24 Phase 1 and Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (kg/hhd/wk)	Phase 2 Residual Composition (kg/hhd/wk)	Phase 1 Commingled Recyclates Composition (kg/hhd/wk)	Phase 2 Commingled Recyclates Composition (kg/hhd/wk)	Phase 1 Separate Food Composition (kg/hhd/wk)	Phase 2 Separate Food Composition (kg/hhd/wk)
Local Authority: Fermanagh & Omagh District Council						
Glass	0.6	0.6	0.4	0.4	0.0	0.0
Paper and cardboard	1.6	1.3	1.8	2.1	0.0	0.0
FE metal	0.1	0.2	0.2	0.2	0.0	0.0
Non FE metal	0.2	0.2	0.1	0.1	0.0	0.0
Mixed scrap metal	0.2	0.1	0.1	0.1	0.0	0.0
Dense plastic	0.8	0.9	0.6	0.6	0.0	0.0
Plastic film	0.9	1.1	0.1	0.1	0.0	0.0
Garden waste	0.4	0.3	0.0	0.0	0.0	0.0
Food wastes	4.9	2.8	0.2	0.2	0.4	1.3
WEEE	0.1	0.1	0.0	0.0	0.0	0.0
Misc. combustible	0.4	0.3	0.1	0.1	0.0	0.0
Textiles & footwear	0.7	0.5	0.0	0.1	0.0	0.0
Misc. non-combustible	0.7	0.8	0.0	0.0	0.0	0.0
Hazardous wastes	0.0	0.2	0.0	0.0	0.0	0.0
Healthcare waste	0.9	1.4	0.0	0.0	0.0	0.0
Fines (<10mm)	0.4	0.5	0.0	0.0	0.0	0.0
Total	**13.0**	**11.2**	**3.5**	**3.9**	**0.4**	**1.3**

9.0   Lisburn and Castlereagh

9.1   Residual waste composition

Residual waste sample in Phase 1 (1,905.3 kg) was composed of 41.5% (790.9 kg) target dry recycling, 0.9% (16.4 kg) garden waste and 11.7% (222.1 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were paper and cardboard (17.9%), dense plastic (13.5%), plastic film (12.6%) and food wastes (12.5%).

Residual waste in Phase 2 (2,246.2 kg) composed of 30.9% (694.5 kg) target dry recycling, 2.7% (60.3 kg) garden waste and 15.3% (344.5 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 2 residual sample were paper and cardboard (16.9%), food waste (15.9%) and healthcare waste (12.1%).

9.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (654.2 kg) consisted of 88.3% (577.5 kg) target material and 11.7% (76.7 kg) non-target material. The main target materials present were paper and cardboard (71.5%) and dense plastic (14.6%). Garden waste (3.1%), mixed scrap metal (1.7%) and plastic film (1.0%) were the prevalent non-target materials in the Phase 1 commingled recyclates sample.

In Phase 2 (773.8 kg), the proportion of target material in the commingled recyclates sample increased to 88.7% (686.6 kg) and non-target material decreased slightly to 11.3% (87.3 kg). The key target materials in the Phase 2 commingled recyclates sample were paper and cardboard (70.5%) and dense plastic (16.8%). Non-target materials included food waste (1.6%), miscellaneous combustibles (1.4%) and plastic film (1.0%).

In Phase 1, the source segregated recyclates sample (76.7 kg) contained 98.5% (75.5 kg) of target material and 1.5% (1.2 kg) of non-target material. Paper and cardboard (38.6%), glass (37.0%) and dense plastic (14.1%) were the main target materials. Non-target material included food waste (0.3%) and plastic film (0.1%).

In Phase 2 (121.4 kg) the source segregated recyclates sample was composed of 90.4 % (109.7 kg) target material and 9.6% (11.7 kg) non-target material. The key materials were paper and cardboard (46.0%), glass (34.0%) and dense plastic (14.1%). Non-target materials included plastic film (0.1%).

9.3   Organic waste composition

The Phase 1 commingled organics sample (2,988.6 kg) contained 98.5% (2,944.2 kg) target material and 1.5% (44.5 kg) non-target material. The prevalent non-target materials were miscellaneous combustibles (0.4%) and paper and cardboard (0.3%).

The Phase 2 commingled organics sample (2,281.2 kg) consisted of 98.1% (2,238.7 kg) target material and 1.9% (42.5 kg) of non-target material. The main non-target materials included paper and cardboard (1.2%) and healthcare waste (0.3%).

9.4   Overall waste composition

Figures 22-24 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
■ Paper and cardboard (17.4%)
■ Food waste (14.2%)
■ Dense plastic (12.0%)

The prevalent primary categories in the combined recyclates composition were:
■ Paper and cardboard (68.7%)
■ Dense plastic (15.6%)
■ FE metal (4.2%)

The prevalent primary categories in the combined organics composition were:
■ Garden waste (84.2%)
■ Food waste (14.5%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 25 and Table 26 and in kilogram per household per week in Table 27 and Table 28 below.

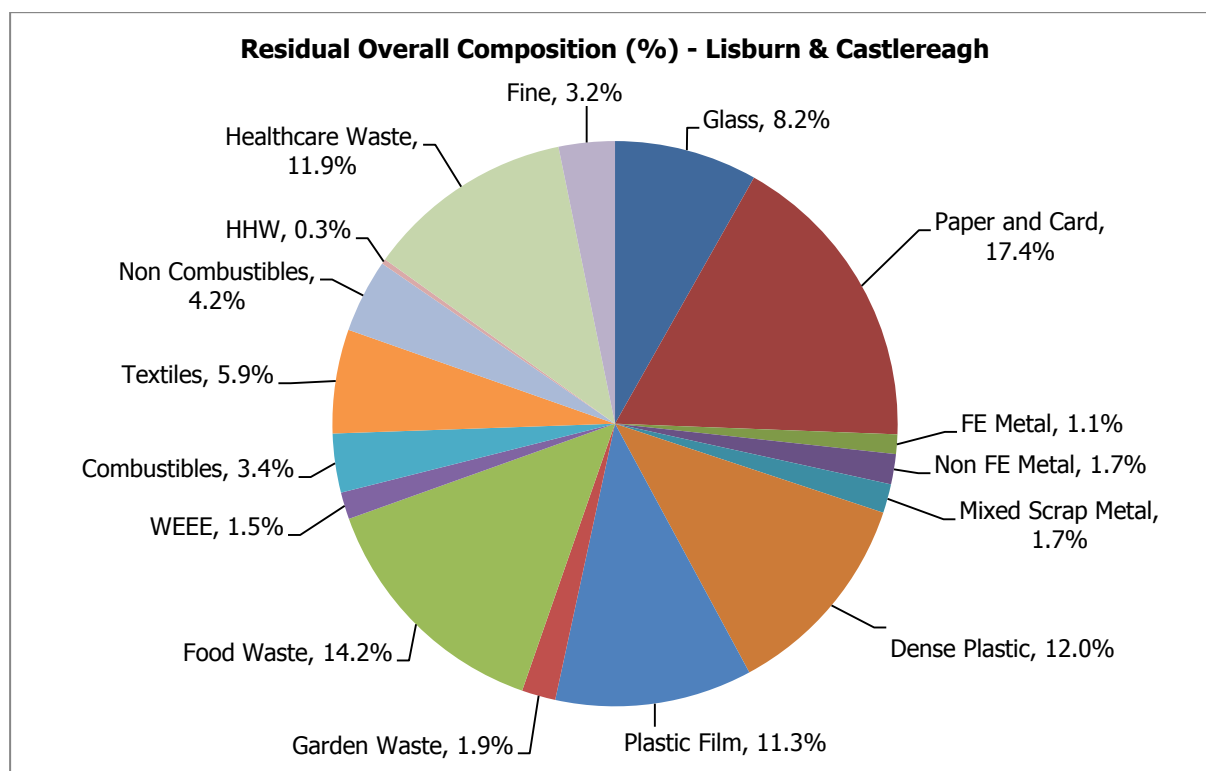**Figure 22 Overall composition (%) of primary waste categories in residual stream sample**

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Figure 23 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Lisburn & Castlereagh

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE

Labels: Garden Waste, 1.5%; Food Waste, 1.1%; Glass, 3.4%; Mixed Scrap Metal, 0.8%; Dense Plastic, 15.6%; Non FE Metal, 2.8%; FE Metal, 4.2%; Paper and Card, 68.7%
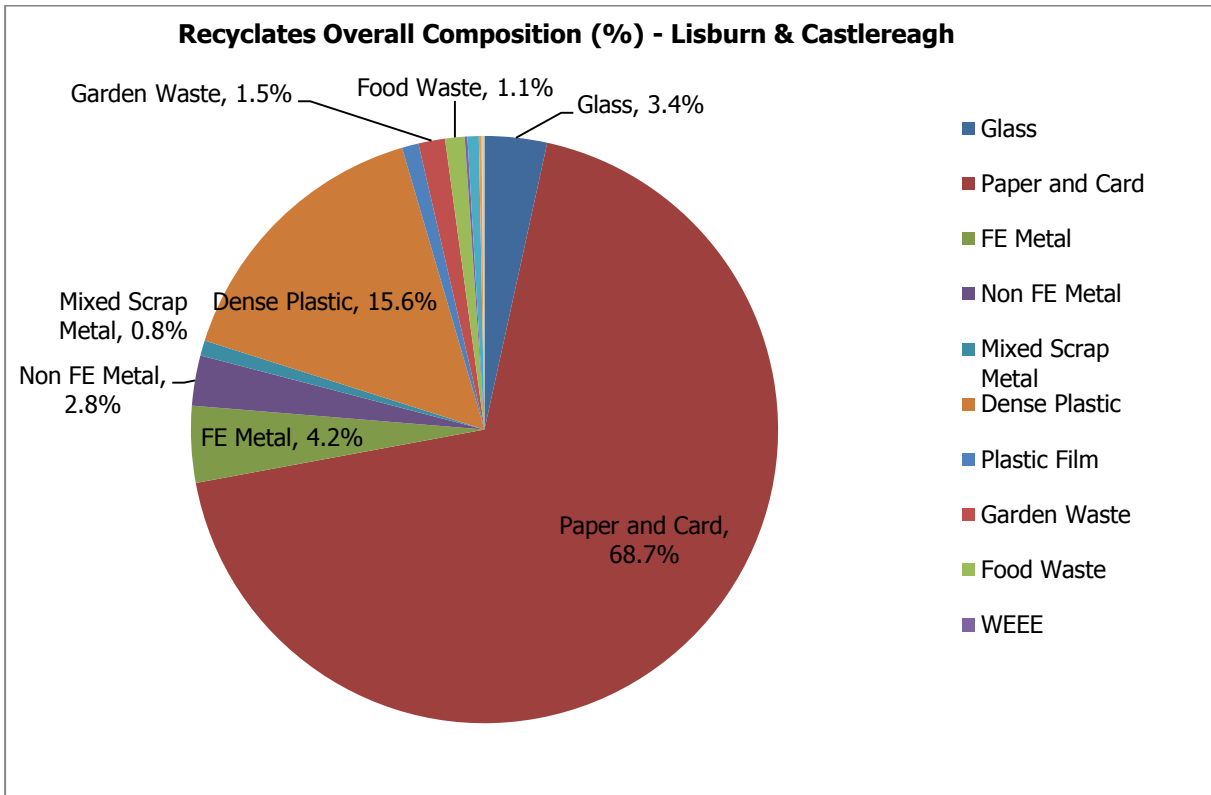
Figure 24 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Lisburn & Castlereagh

Legend:
- Glass
- Paper and Card
- FE Metal
- Non FE Metal
- Mixed Scrap Metal
- Dense Plastic
- Plastic Film
- Garden Waste
- Food Waste
- WEEE
- Combustibles
- Textiles
- Non Combustibles
- HHW
- Healthcare Waste
- Fine

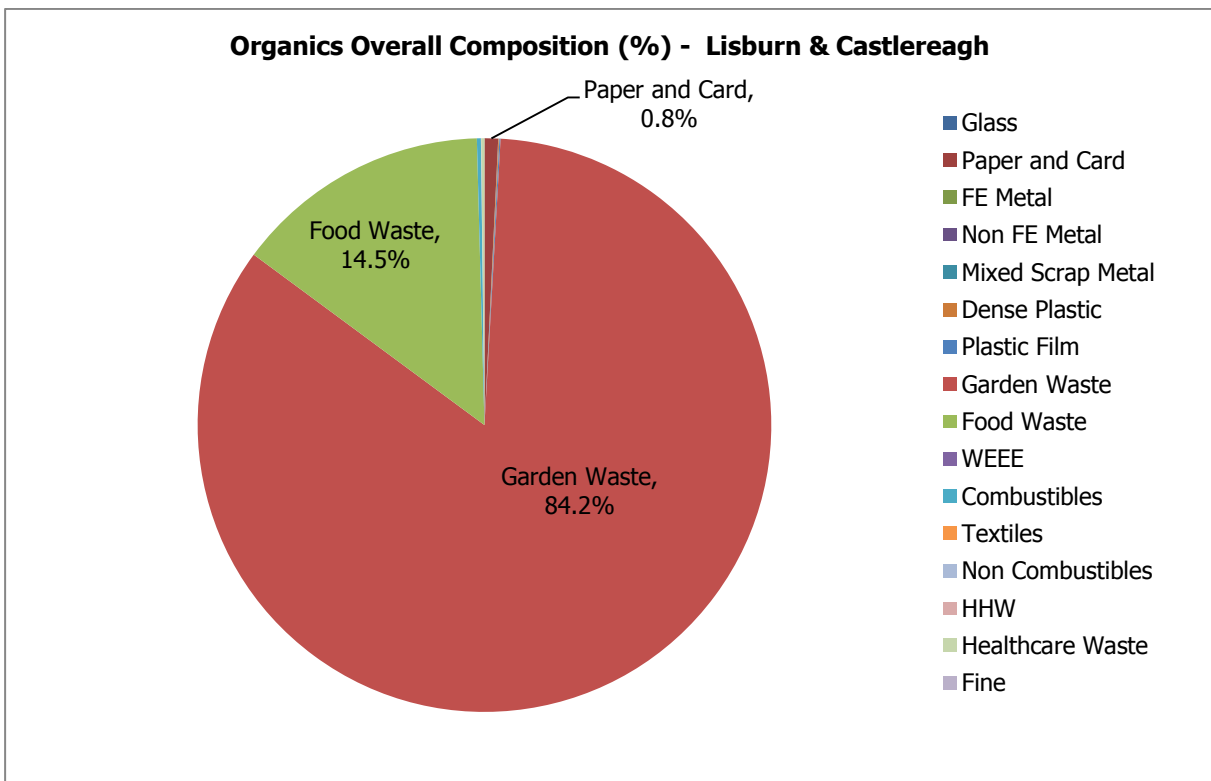Labels: Paper and Card, 0.8%; Food Waste, 14.5%; Garden Waste, 84.2%

Table 25 Phase 1 Composition (%) of primary waste categories in each waste stream sample

	Local Authority: Lisburn & Castlereagh City Council			
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)
Glass	9.2%	0.7%	37.0%	0.0%
Paper and cardboard	17.9%	71.5%	38.6%	0.3%
FE metal	1.0%	4.0%	3.1%	0.0%
Non FE metal	2.0%	2.4%	6.9%	0.0%
Mixed scrap metal	1.6%	1.7%	0.0%	0.0%
Dense plastic	13.5%	14.6%	14.1%	0.0%
Plastic film	12.6%	1.0%	0.1%	0.0%
Garden waste	1.0%	3.1%	0.0%	90.3%
Food wastes	12.5%	0.7%	0.3%	8.8%
WEEE	1.3%	0.1%	0.0%	0.0%
Misc. combustible	3.9%	0.0%	0.0%	0.4%
Textiles & footwear	7.5%	0.1%	0.0%	0.0%
Misc. non-combustible	2.7%	0.0%	0.0%	0.0%
Hazardous wastes	0.1%	0.0%	0.0%	0.0%
Healthcare waste	11.7%	0.1%	0.0%	0.1%
Fines (<10mm)	1.6%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

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Table 26 Phase 2 Composition (%) of primary waste categories in each waste stream sample

	Local Authority: Lisburn & Castlereagh City Council			
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)
Glass	7.2%	0.5%	34.0%	0.0%
Paper and cardboard	16.9%	70.5%	46.0%	1.2%
FE metal	1.3%	4.7%	2.9%	0.0%
Non FE metal	1.5%	2.8%	2.5%	0.0%
Mixed scrap metal	1.7%	0.1%	0.0%	0.0%
Dense plastic	10.5%	16.8%	14.1%	0.1%
Plastic film	10.0%	1.0%	0.1%	0.1%
Garden waste	2.8%	0.0%	0.0%	78.2%
Food wastes	15.9%	1.6%	0.0%	20.1%
WEEE	1.8%	0.2%	0.0%	0.0%
Misc. combustible	2.8%	1.4%	0.0%	0.0%
Textiles & footwear	4.4%	0.3%	0.0%	0.0%
Misc. non-combustible	5.7%	0.0%	0.0%	0.0%
Hazardous wastes	0.5%	0.0%	0.3%	0.0%
Healthcare waste	12.1%	0.1%	0.0%	0.3%
Fines (<10mm)	4.8%	0.0%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

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Table 27 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Lisburn & Castlereagh City Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)
Glass	0.6	0.0	0.7	0.0
Paper and cardboard	1.1	2.1	0.8	0.0
FE metal	0.1	0.1	0.1	0.0
Non FE metal	0.1	0.1	0.1	0.0
Mixed scrap metal	0.1	0.1	0.0	0.0
Dense plastic	0.9	0.4	0.3	0.0
Plastic film	0.8	0.0	0.0	0.0
Garden waste	0.1	0.1	0.0	9.0
Food wastes	0.8	0.0	0.0	0.9
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.0
Textiles & footwear	0.5	0.0	0.0	0.0
Misc. non-combustible	0.2	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	0.7	0.0	0.0	0.0
Fines (<10mm)	0.1	0.0	0.0	0.0
Total	**6.4**	**2.9**	**2.0**	**10.0**

Table 28 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)
Local Authority: Lisburn & Castlereagh City Council				
Glass	0.5	0.0	1.1	0.0
Paper and cardboard	1.3	2.5	1.4	0.1
FE metal	0.1	0.2	0.1	0.0
Non FE metal	0.1	0.1	0.1	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0
Dense plastic	0.8	0.6	0.4	0.0
Plastic film	0.7	0.0	0.0	0.0
Garden waste	0.2	0.0	0.0	5.9
Food wastes	1.2	0.1	0.0	1.5
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.0
Textiles & footwear	0.3	0.0	0.0	0.0
Misc. non-combustible	0.4	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	0.9	0.0	0.0	0.0
Fines (<10mm)	0.4	0.0	0.0	0.0
Total	**7.5**	**3.5**	**3.1**	**7.6**

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10.0 Mid and East Antrim

10.1   Residual waste composition

Residual waste sample in Phase 1 (2,552.9 kg) was composed of 38.3% (978.5 kg) target dry recycling, 1.3% (32.5 kg) garden waste and 16.2% (413.3 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were paper and cardboard (16.8%), food waste (16.7%) and healthcare waste (13.5%).

Residual waste in Phase 2 (2,319.7 kg) composed of 33.6% (780.3 kg) target dry recycling, 0.1% (2.7 kg) garden waste and 16.2% (375.2 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 2 residual sample were healthcare waste (19.2%), food wastes (17.6%) and paper and cardboard (16.6%).

10.2   Recyclable waste composition

In Phase 1, the commingled recyclates sample (253.3 kg) consisted of 90.3% (228.7 kg) target material and 9.7% (24.6 kg) non-target material. The main target materials present were paper and cardboard (55.6%) and dense plastic (22.0%).   Non-target materials included plastic film (5.5%) and food waste (1.1%).

In Phase 2 (262.3 kg), the proportion of target material in the commingled recyclates sample was 88.2% (231.3 kg) and non-target material was 11.8% (31.1 kg).   The key target materials were paper and cardboard (54.2%), dense plastic (16.5%) and glass (12.1%). Food waste (2.7%) and plastic film (2.2%) were the prevalent non-target materials.

In Phase 1, the source segregated recyclates sample (261.2 kg) contained 97.6% (255.0 kg) target material and 2.4% (6.2 kg) non-target material. Paper and cardboard (45.0%), glass (24.3%) and dense plastic (16.1%) were the main target materials. Non-target material included miscellaneous combustible (0.6%) and food waste (0.3%).

In Phase 2, the proportion of target material in the source segregated recyclates sample (229.9 kg) increased to 99.3 % (228.3 kg) and non-target material decreased to 0.7% (1.6 kg). The key materials were paper and cardboard (44.5%), glass (25.9%) and dense plastic (18.3%). Non-target materials included plastic film (0.1%) and mixed scrap metal (0.1%).

10.3   Organic waste composition

The Phase 1 commingled organics sample (2,629.4 kg) contained 92.4% (2,429.3 kg) target material and 7.6% (200.1 kg) non-target material. Non-target materials included fines (1.3%), healthcare waste (1.1%) and miscellaneous non-combustibles (1.0%).

Target material in the Phase 2 commingled organics sample (2,789.0 kg) increased to 96.1% (2,679.6 kg) and non-target material decreased to 3.9% (109.4 kg). Paper and cardboard (0.9%) and miscellaneous combustibles (0.9%) were the main non-target materials in the Phase 2 commingled organics sample.

10.4   Overall waste composition

Figures 25-27 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
■ Food waste (17.1%)
■ Paper and cardboard (16.7%)
■ Healthcare waste (16.4%)

The prevalent primary categories in the combined recyclates composition were:
■ Paper and cardboard (46.0%)
■ Glass (22.9%)
■ Dense plastic (17.4%)

The prevalent primary categories in the combined organics composition were:
■ Garden waste (75.8%)
■ Food waste (20.5%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 29 and Table 30 and in kilogram per household per week in Table 31 and Table 32 below.

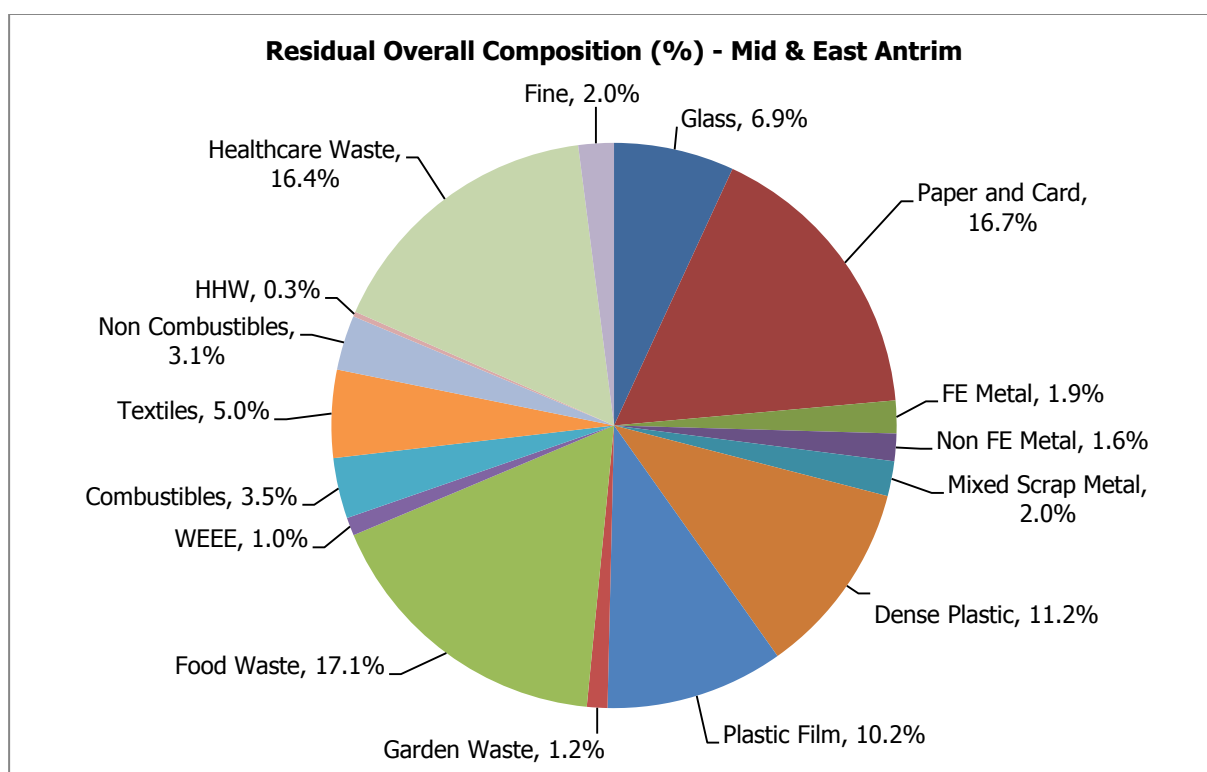**Figure 25 Overall composition (%) of primary waste categories in residual stream sample**

Figure 26 Overall composition (%) of primary waste categories in recyclates stream sample
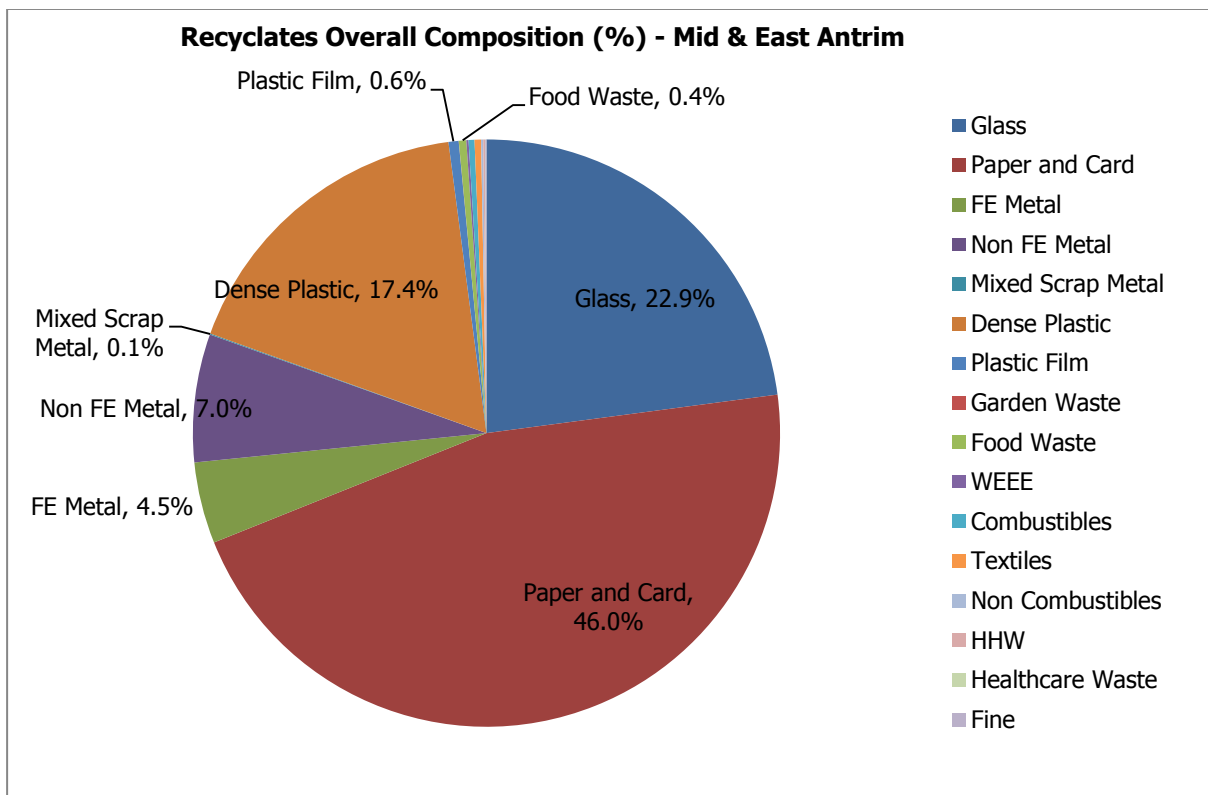

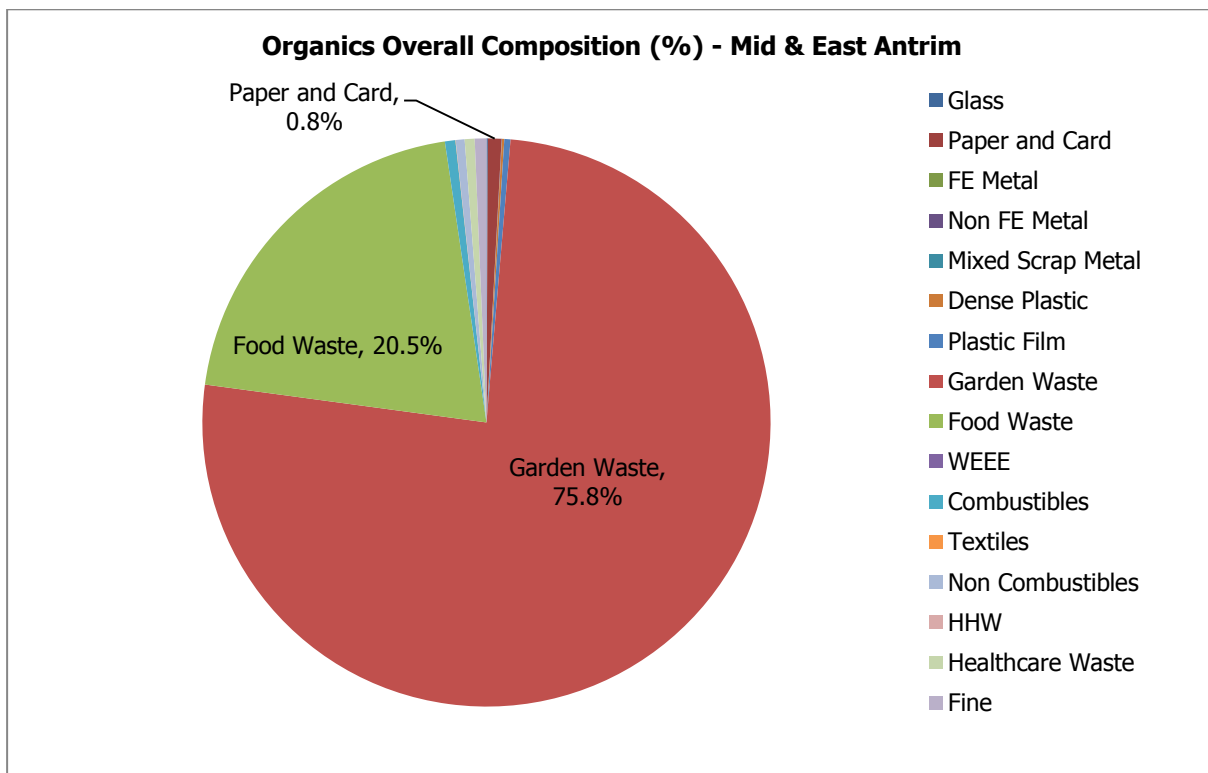**Figure 27 Overall composition (%) of primary waste categories in organics stream sample**

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Table 29 Phase 1 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Mid and East Antrim Borough Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)
Glass	8.0%	2.7%	24.3%	0.2%
Paper and cardboard	16.8%	55.6%	45.0%	0.7%
FE metal	2.1%	5.4%	5.1%	0.0%
Non FE metal	1.4%	6.5%	8.0%	0.0%
Mixed scrap metal	0.8%	0.0%	0.0%	0.0%
Dense plastic	11.8%	22.0%	16.1%	0.2%
Plastic film	11.8%	5.5%	0.0%	0.6%
Garden waste	1.6%	0.0%	0.0%	77.7%
Food wastes	16.7%	1.1%	0.3%	17.0%
WEEE	1.2%	0.0%	0.0%	0.0%
Misc. combustible	4.0%	0.2%	0.6%	0.2%
Textiles & footwear	4.1%	0.5%	0.0%	0.0%
Misc. non-combustible	4.2%	0.0%	0.2%	1.0%
Hazardous wastes	0.1%	0.0%	0.2%	0.0%
Healthcare waste	13.5%	0.0%	0.0%	1.1%
Fines (<10mm)	2.0%	0.5%	0.0%	1.3%
Total	**100%**	**100%**	**100%**	**100%**

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Table 30 Phase 2 Composition (%) of primary waste categories in each waste stream sample

Local Authority: Mid and East Antrim Borough Council				
Primary Category	Residual Composition (%)	Commingled Recyclates Composition (%)	Source Segregated Recyclates Composition (%)	Commingled Organics Composition (%)
Glass	5.8%	12.1%	25.9%	0.0%
Paper and cardboard	16.6%	54.2%	44.5%	0.9%
FE metal	1.7%	3.8%	3.8%	0.0%
Non FE metal	1.8%	6.7%	6.2%	0.0%
Mixed scrap metal	3.2%	0.0%	0.1%	0.0%
Dense plastic	10.5%	16.5%	18.3%	0.1%
Plastic film	8.6%	2.2%	0.1%	0.1%
Garden waste	0.7%	0.1%	0.0%	73.9%
Food wastes	17.6%	2.7%	0.0%	24.0%
WEEE	0.9%	0.0%	0.2%	0.0%
Misc. combustible	2.9%	0.4%	0.0%	0.9%
Textiles & footwear	6.0%	0.1%	0.7%	0.0%
Misc. non-combustible	2.1%	0.3%	0.0%	0.0%
Hazardous wastes	0.5%	0.1%	0.0%	0.0%
Healthcare waste	19.2%	0.2%	0.0%	0.1%
Fines (<10mm)	2.0%	0.5%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**

Table 31 Phase 1 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Mid and East Antrim Borough Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)
Glass	0.7	0.1	0.6	0.0
Paper and cardboard	1.4	1.5	1.1	0.1
FE metal	0.2	0.1	0.1	0.0
Non FE metal	0.1	0.2	0.2	0.0
Mixed scrap metal	0.1	0.0	0.0	0.0
Dense plastic	1.0	0.6	0.4	0.0
Plastic film	1.0	0.1	0.0	0.1
Garden waste	0.1	0.0	0.0	6.8
Food wastes	1.4	0.0	0.0	1.5
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.3	0.0	0.0	0.0
Textiles & footwear	0.3	0.0	0.0	0.0
Misc. non-combustible	0.4	0.0	0.0	0.1
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.2	0.0	0.0	0.1
Fines (<10mm)	0.2	0.0	0.0	0.1
Total	**8.5**	**2.7**	**2.5**	**8.8**

Table 32 Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Local Authority: Mid and East Antrim Borough Council				
Primary Category	Residual Composition (kg/hhd/wk)	Commingled Recyclates Composition (kg/hhd/wk)	Source Segregated Recyclates Composition (kg/hhd/wk)	Commingled Organics Composition (kg/hhd/wk)
Glass	0.4	0.3	0.6	0.0
Paper and cardboard	1.3	1.5	1.0	0.1
FE metal	0.1	0.1	0.1	0.0
Non FE metal	0.1	0.2	0.1	0.0
Mixed scrap metal	0.2	0.0	0.0	0.0
Dense plastic	0.8	0.5	0.4	0.0
Plastic film	0.7	0.1	0.0	0.0
Garden waste	0.1	0.0	0.0	6.9
Food wastes	1.4	0.1	0.0	2.2
WEEE	0.1	0.0	0.0	0.0
Misc. combustible	0.2	0.0	0.0	0.1
Textiles & footwear	0.5	0.0	0.0	0.0
Misc. non-combustible	0.2	0.0	0.0	0.0
Hazardous wastes	0.0	0.0	0.0	0.0
Healthcare waste	1.5	0.0	0.0	0.0
Fines (<10mm)	0.2	0.0	0.0	0.0
Total	**7.7**	**2.8**	**2.2**	**9.3**

11.0 Mid Ulster

11.1 Residual waste composition

Residual waste sample in Phase 1 (2,672.7 kg) was composed of 23.7% (633.9 kg) target dry recycling, 2.6% (69.4 kg) garden waste and 28.3% (756.3 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food wastes (28.5%), healthcare waste (14.2%) and paper and cardboard (12.7%).

Residual waste in Phase 2 (2,893.7 kg) composed of 23.9% (692.4 kg) target dry recycling, 0.1% (1.7 kg) garden waste and 21.7% (626.6 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The main primary composition categories in the Phase 2 residual sample were food wastes (23.5%); paper and cardboard (13.9%) and healthcare waste (12.7%).

11.2 Recyclable waste composition

In Phase 1, the commingled recyclates sample (1,055.4 kg) consisted of 86.0% (907.7 kg) target material and 14.0% (147.7 kg) non-target material. The main target materials were paper and cardboard (43.6%), glass (20.4%) and dense plastic (18.8%).   Non-target materials included plastic film (2.7%), food waste (2.5%) and healthcare waste (2.1%).

In Phase 2, the commingled recyclates sample (1,280.7 kg) consisted of 79.5% (1,017.9 kg) target material and 20.5% (262.9 kg) non-target material. The key target materials were paper and cardboard (41.9%), glass (22.2%) and dense plastic (15.9%).   Non-target materials included food waste (6.7%) and plastic film (3.1%).

11.3 Organic waste composition

The Phase 1 commingled organics sample (2,140.6 kg) consisted of 94.1% (2,013.5 kg) of target material and 5.9% (127.1 kg) of non-target material. The key non-target materials were miscellaneous combustibles (0.7%), plastic film (0.3%) and paper and cardboard (0.3%).

In Phase 2, the proportion of target material in the commingled organics sample (1,984.4 kg) increased to 97.0% (1,924.1 kg) and non-target material decreased to 3.0% (60.4 kg). Non-target materials included miscellaneous non-combustibles (0.7%) and miscellaneous combustibles (0.4%).

11.4 Overall waste composition

Figures 28-30 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (26.0%)
- Healthcare waste (13.4%)
- Paper and cardboard (13.3%)

The prevalent primary categories in the combined recyclates composition were:
- Paper and cardboard (42.7%)
- Glass (21.3%)
- Dense plastic (17.4%)

The prevalent primary categories in the combined organics composition were:
- Garden waste (84.9%)
- Food waste (13.0%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 33 and in kilogram per household per week in Table 34 below.

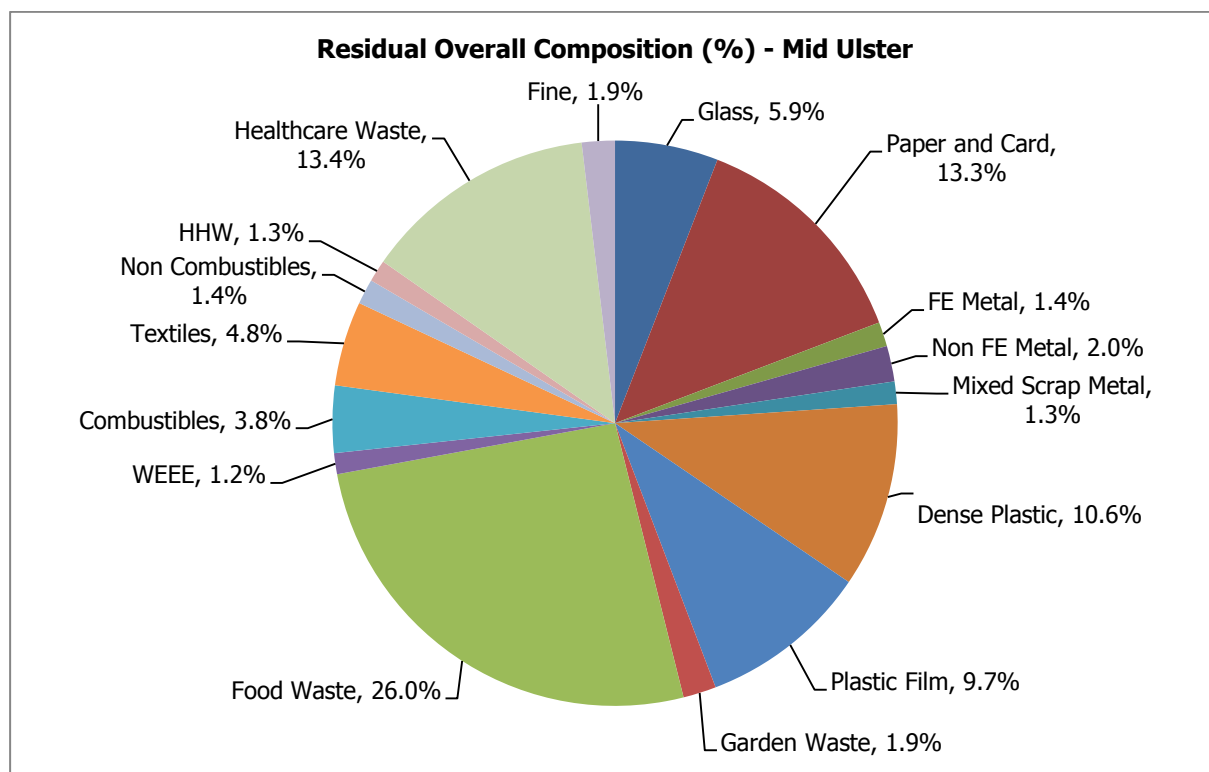**Figure 28 Overall composition (%) of primary waste categories in residual stream sample**

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Figure 29 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Mid Ulster
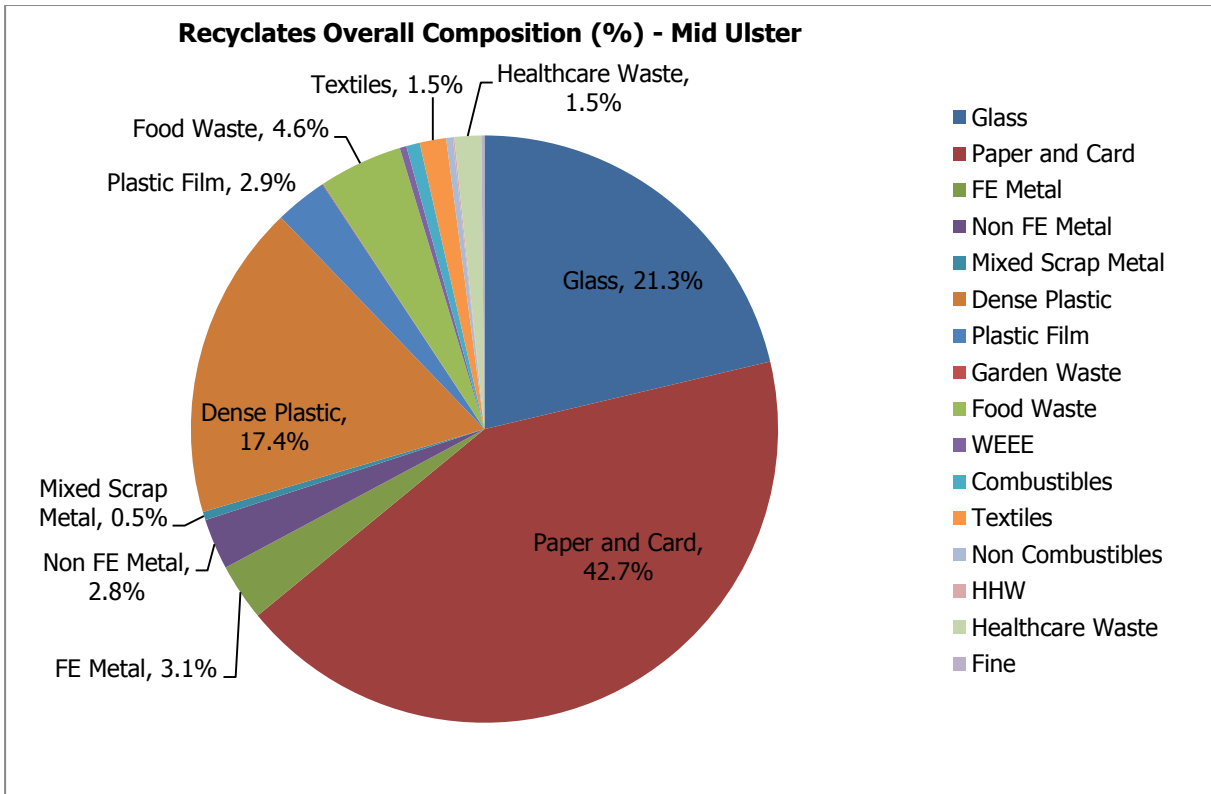
Figure 30 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Mid Ulster

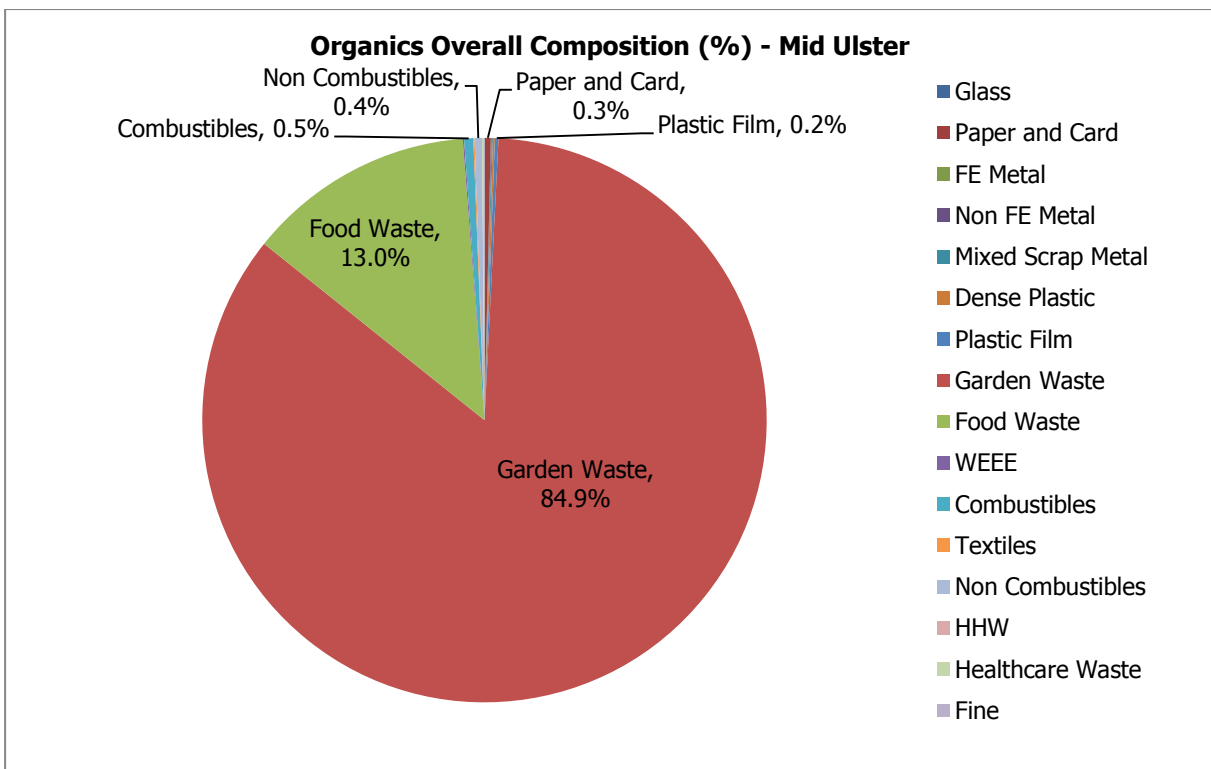This document is uncontrolled if printed

Table 33 Phase 1 and Phase 2 Composition (%) of primary waste categories in each waste stream sample

	Local Authority: Mid Ulster District Council					
Primary Category	Phase 1 Residual Composition (%)	Phase 2 Residual Composition (%)	Phase 1 Commingled Recyclates Composition (%)	Phase 2 Commingled Recyclates Composition (%)	Phase 1 Commingled Organics Composition (%)	Phase 2 Commingled Organics Composition (%)
Glass	5.8%	6.0%	20.4%	22.2%	0.0%	0.0%
Paper and cardboard	12.7%	13.9%	43.6%	41.9%	0.3%	0.3%
FE metal	1.1%	1.7%	3.8%	2.5%	0.0%	0.0%
Non FE metal	2.1%	1.9%	3.2%	2.4%	0.0%	0.1%
Mixed scrap metal	1.3%	1.3%	0.2%	0.8%	0.1%	0.1%
Dense plastic	11.0%	10.2%	18.8%	15.9%	0.1%	0.1%
Plastic film	10.4%	9.0%	2.7%	3.1%	0.3%	0.1%
Garden waste	2.9%	0.9%	0.0%	0.1%	85.9%	84.0%
Food wastes	28.5%	23.5%	2.5%	6.7%	12.1%	14.0%
WEEE	0.8%	1.6%	0.3%	0.4%	0.2%	0.0%
Misc. combustible	0.7%	7.0%	0.2%	1.3%	0.7%	0.4%
Textiles & footwear	4.8%	4.9%	1.8%	1.1%	0.1%	0.1%
Misc. non-combustible	0.9%	2.0%	0.2%	0.6%	0.2%	0.7%
Hazardous wastes	1.8%	0.7%	0.0%	0.2%	0.0%	0.0%
Healthcare waste	14.2%	12.7%	2.1%	0.9%	0.1%	0.1%
Fines (<10mm)	0.9%	2.8%	0.2%	0.1%	0.0%	0.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 34 Phase 1 and Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (kg/hhd/wk)	Phase 2 Residual Composition (kg/hhd/wk)	Phase 1 Commingled Recyclates Composition (kg/hhd/wk)	Phase 2 Commingled Recyclates Composition (kg/hhd/wk)	Phase 1 Commingled Organics Composition (kg/hhd/wk)	Phase 2 Commingled Organics Composition (kg/hhd/wk)
			Local Authority: Mid Ulster District Council			
Glass	0.5	0.6	0.7	0.9	0.0	0.0
Paper and cardboard	1.1	1.3	1.5	1.8	0.0	0.0
FE metal	0.1	0.2	0.1	0.1	0.0	0.0
Non FE metal	0.2	0.2	0.1	0.1	0.0	0.0
Mixed scrap metal	0.1	0.1	0.0	0.0	0.0	0.0
Dense plastic	1.0	1.0	0.7	0.7	0.0	0.0
Plastic film	0.9	0.9	0.1	0.1	0.0	0.0
Garden waste	0.3	0.1	0.0	0.0	6.1	5.6
Food wastes	2.5	2.3	0.1	0.3	0.9	0.9
WEEE	0.1	0.2	0.0	0.0	0.0	0.0
Misc. combustible	0.1	0.7	0.0	0.1	0.0	0.0
Textiles & footwear	0.4	0.5	0.1	0.0	0.0	0.0
Misc. non-combustible	0.1	0.2	0.0	0.0	0.0	0.0
Hazardous wastes	0.2	0.1	0.0	0.0	0.0	0.0
Healthcare waste	1.3	1.2	0.1	0.0	0.0	0.0
Fines (<10mm)	0.1	0.3	0.0	0.0	0.0	0.0
Total	**8.9**	**9.6**	**3.5**	**4.3**	**7.1**	**6.6**

12.0 Newry, Mourne and Down

12.1 Residual waste composition

Residual waste sample in Phase 1 (2,575.6 kg) was composed of 25.5% (656.4 kg) target dry recycling, 0.5% (12.5 kg) garden waste and 23.5% (605.7 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 1 residual sample were food waste (24.8%), paper and cardboard (16.3%) and plastic film (10.2%).

Residual waste in Phase 2 (3,774.2 kg) composed of 24.8% (935.6 kg) target dry recycling, 0.4% (16.0 kg) garden waste and 24.8% (936.7 kg) of avoidable and unavoidable food waste. The remainder was non-recyclable materials.

The prevalent primary composition categories in the Phase 2 residual sample were food wastes (25.6%), plastic film (15.4%) and paper and cardboard (13.9%).

12.2 Recyclable waste composition

In Phase 1, the commingled recyclates sample (1,124.1 kg) consisted of 88.3% (992.3 kg) target material and 11.7% (131.7 kg) non-target material. The dominant target materials present in Phase 1 commingled recyclates sample were paper and cardboard (44.8%), glass (26.2%) and dense plastic (16.7%). Non-target materials include food waste (2.7%) and plastic film (1.4%).

In Phase 2, the commingled recyclates sample (1,708.1 kg) contained 87.7% (1,498.7 kg) of target material and 12.3% (209.4 kg) of non-target material. The key target materials were paper and cardboard (45.5%), glass (26.5%) and dense plastic (15.0%). Non-target materials included plastic film (2.6%) and miscellaneous combustibles (1.3%).

12.3 Organic waste composition

The Phase 1 commingled organics sample (1,851.7 kg) consisted of 95.0% (1,758.2 kg) of target material and 5.0% (93.5 kg) of non-target material. The prevalent non-target materials were healthcare waste (0.5%) and paper and cardboard (0.2%).

In Phase 2, the proportion of target material in the commingled organics sample (1,444.1 kg) increased to 98.8% (1,426.8 kg) and non-target material decreased to 1.2% (17.3 kg). Non-target materials included healthcare waste (0.7%) and paper and cardboard (0.3%).

12.4 Overall waste composition

Figures 31-33 present the combined Phase 1 and Phase 2 composition (%) of primary waste categories in each waste stream.

The prevalent primary categories in the combined residual composition were:
- Food waste (25.2%)
- Paper and cardboard (15.1%)
- Plastic film (12.8%)

The prevalent primary categories in the combined recyclates composition were:
■ Paper and cardboard (45.2%)
■ Glass (26.4%)
■ Dense plastic (15.8%)

The prevalent primary categories in the combined organics composition were:
■ Garden waste (88.1%)
■ Food waste (10.8%)

Phase 1 and Phase 2 composition of primary waste categories in each waste stream sample are presented in composition % in Table 35 and in kilogram per household per week in Table 36 below.

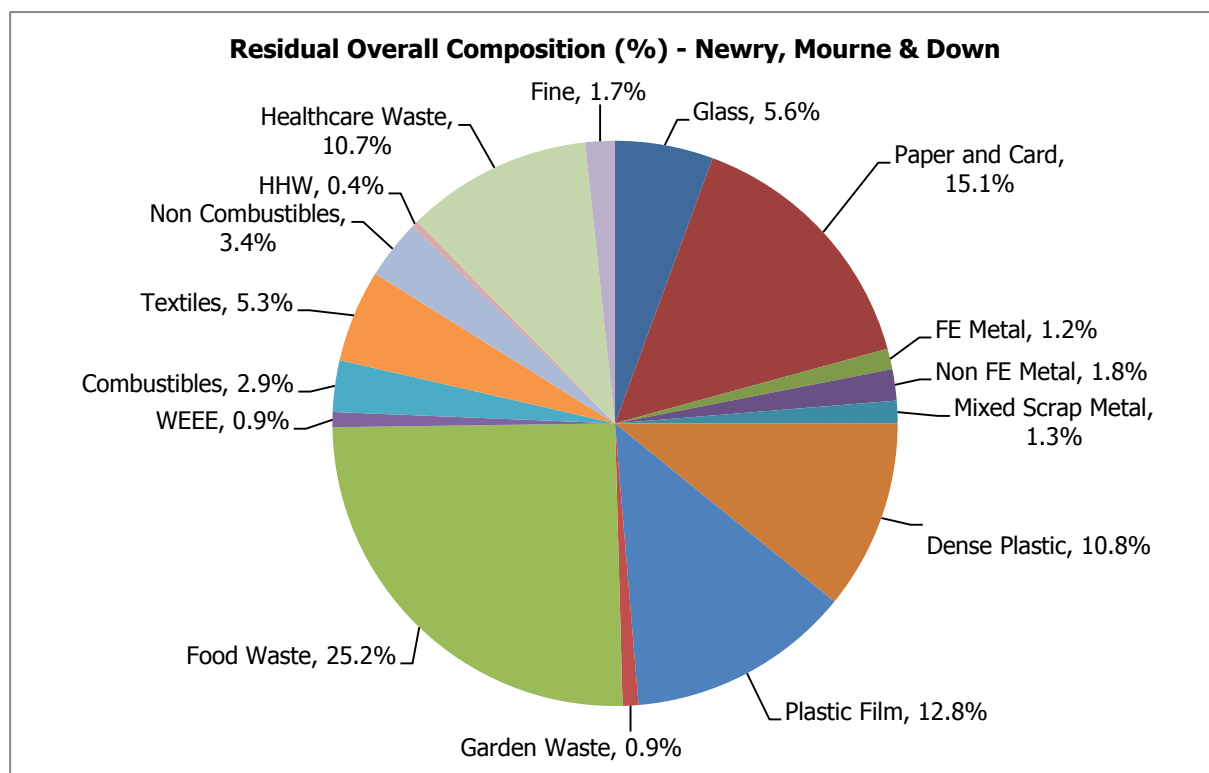**Figure 31 Overall composition (%) of primary waste categories in residual stream sample**

Residual Overall Composition (%) - Newry, Mourne & Down

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Figure 32 Overall composition (%) of primary waste categories in recyclates stream sample

Recyclates Overall Composition (%) - Newry, Mourne & Down
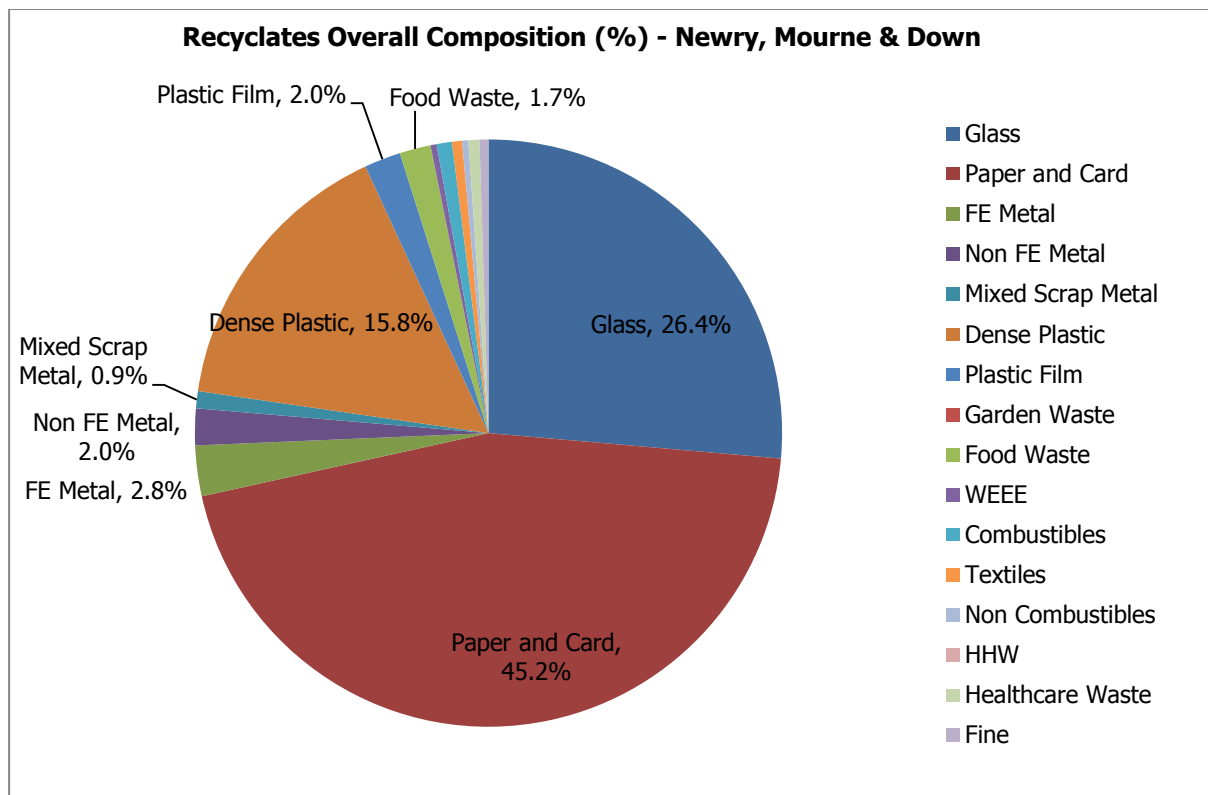
Figure 33 Overall composition (%) of primary waste categories in organics stream sample

Organics Overall Composition (%) - Newry, Mourne & Down

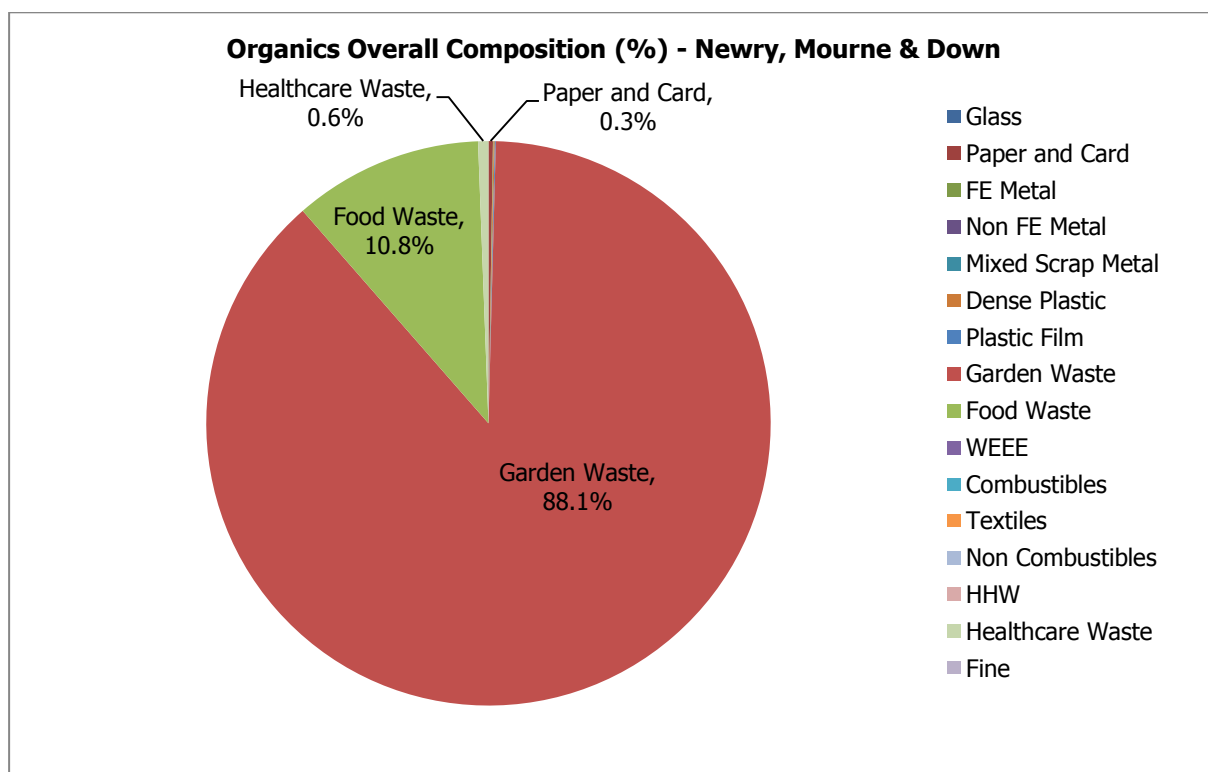This document is uncontrolled if printed

Table 35 Phase 1 and Phase 2 Composition (%) of primary waste categories in each waste stream sample

	Local Authority: Newry, Mourne & Down District Council					
Primary Category	Phase 1 Residual Composition (%)	Phase 2 Residual Composition (%)	Phase 1 Commingled Recyclates Composition (%)	Phase 2 Commingled Recyclates Composition (%)	Phase 1 Commingled Organics Composition (%)	Phase 2 Commingled Organics Composition (%)
Glass	6.4%	4.8%	26.2%	26.5%	0.0%	0.0%
Paper and cardboard	16.3%	13.9%	44.8%	45.5%	0.2%	0.3%
FE metal	1.7%	0.7%	1.8%	3.8%	0.0%	0.1%
Non FE metal	2.0%	1.6%	2.2%	1.8%	0.0%	0.0%
Mixed scrap metal	1.8%	0.8%	0.9%	1.0%	0.0%	0.0%
Dense plastic	9.8%	11.9%	16.7%	15.0%	0.0%	0.1%
Plastic film	10.2%	15.4%	1.4%	2.6%	0.1%	0.0%
Garden waste	1.2%	0.6%	0.0%	0.0%	88.4%	87.9%
Food wastes	24.8%	25.6%	2.7%	0.7%	10.8%	10.9%
WEEE	0.9%	0.9%	0.4%	0.3%	0.0%	0.0%
Misc. combustible	2.9%	3.0%	0.4%	1.3%	0.0%	0.0%
Textiles & footwear	6.0%	4.5%	0.9%	0.2%	0.0%	0.0%
Misc. non-combustible	3.8%	3.1%	0.7%	0.0%	0.0%	0.0%
Hazardous wastes	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Healthcare waste	9.8%	11.5%	0.4%	0.8%	0.5%	0.7%
Fines (<10mm)	1.7%	1.7%	0.5%	0.5%	0.0%	0.0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 36 Phase 1 and Phase 2 Composition (kilogram per household per week) of primary waste categories in each waste stream sample

Primary Category	Phase 1 Residual Composition (kg/hhd/wk)	Phase 2 Residual Composition (kg/hhd/wk)	Phase 1 Commingled Recyclates Composition (kg/hhd/wk)	Phase 2 Commingled Recyclates Composition (kg/hhd/wk)	Phase 1 Commingled Organics Composition (kg/hhd/wk)	Phase 2 Commingled Organics Composition (kg/hhd/wk)
Glass	0.6	0.6	1.0	1.5	0.0	0.0
Paper and cardboard	1.4	1.8	1.7	2.6	0.0	0.0
FE metal	0.1	0.1	0.1	0.2	0.0	0.0
Non FE metal	0.2	0.2	0.1	0.1	0.0	0.0
Mixed scrap metal	0.2	0.1	0.0	0.1	0.0	0.0
Dense plastic	0.8	1.5	0.6	0.9	0.0	0.0
Plastic film	0.9	1.9	0.1	0.1	0.0	0.0
Garden waste	0.1	0.1	0.0	0.0	5.5	4.2
Food wastes	2.1	3.2	0.1	0.0	0.7	0.5
WEEE	0.1	0.1	0.0	0.0	0.0	0.0
Misc. combustible	0.3	0.4	0.0	0.1	0.0	0.0
Textiles & footwear	0.5	0.6	0.0	0.0	0.0	0.0
Misc. non-combustible	0.3	0.4	0.0	0.0	0.0	0.0
Hazardous wastes	0.1	0.0	0.0	0.0	0.0	0.0
Healthcare waste	0.8	1.4	0.0	0.0	0.0	0.0
Fines (<10mm)	0.1	0.2	0.0	0.0	0.0	0.0
Total	**8.6**	**12.6**	**3.7**	**5.7**	**6.2**	**4.8**

Local Authority: Newry, Mourne & Down District Council

13.0 Biodegradable Food Bags

The weight of biodegradable food bags were removed from organic samples. Table 37 below outlines the weights of biodegradable food bags from each Local Authority organic sample in Phase 1 and Phase 2.

Table 37 Weight of Biodegradable Food Bags from each Organic Sample from Local Authorities in Phase 1 and Phase 2

Local Authority	Commingled Organics		Separate Garden		Separate Food	
	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Antrim & Newtownabbey	0.9	33.9			0.0	
Ards & North Down	1.7	2.6				
Armagh City, Banbridge & Craigavon	2.1	1.6			1.5	0.3
Belfast City Council	0.8	15.9			0.0	3.7
Causeway Coast & Glens	1.5	1.1		0.0	1.8	0.0
Derry City & Strabane			0.7	0.0	0.8	5.8
Fermanagh & Omagh					0.0	23.0
Lisburn & Castlereagh	3.7	23.7				
Mid & East Antrim	3.8	18.1				
Mid Ulster	9.0	7.7				
Newry, Mourne & Down	9.0	2.8				
	32.4	**107.5**	**0.7**	**0.0**	**4.1**	**32.8**

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