

A close-up photograph of several discarded plastic bottles lying on a paved surface. The bottles are out of focus, with the one in the foreground being the most prominent. The bottles are various colors and designs, including one with blue and white stripes and a logo. The background shows more bottles and a blurred green object, possibly a pen or marker. The overall scene suggests littering in an outdoor setting.

# Litter Composition Report 2019/20

**KEEP  
NORTHERN  
IRELAND  
BEAUTIFUL**

# Unwrapping Northern Ireland's costly litter problem

Keep Northern Ireland Beautiful is an environmental charity dedicated to creating a healthy environment, resilient communities and thriving places. We work together with government, organisations and individuals to prevent costly littering behaviour and the resulting environmental pollution. This movement of shared responsibility is essential to rid our streets, parks, beaches and rivers of litter.

In light of the forthcoming European Union (EU) Directives on litter, with UK legislation anticipated to follow close behind, Keep Northern Ireland Beautiful commissioned an independent litter composition analysis. The report demonstrates that litter is reaching concerning levels in Northern Ireland (NI). In addition to this, our most recent

public focus group research showed, one in three people openly admit to littering in NI.<sup>1</sup>

The scale of the problem is clear, we need to work together to prevent littering and the resulting environmental pollution.




<sup>1</sup> Live Here Love Here Campaign Quantitative Research Findings, May 2019. Cognisense, page 40.

The street cleansing costs for Northern Ireland are £45 million annually<sup>2</sup>



1 in 3 people openly admit to littering

<sup>2</sup> Keep Northern Ireland Beautiful , Cleaner Neighbourhoods Report 2017/18, page 3.



80% of marine litter is estimated to come from the land.<sup>3</sup> Business as usual isn't an option, responsible, drastic change is required.

Portrush beach  
August 2018.

## The legislation

The **EU Waste Framework Directive**<sup>4</sup> establishes rules on how waste should be managed and aims to reduce the environmental impact of waste, encouraging resource efficiency through reuse, recycling and recovery. It outlines eight actions on litter, which must be implemented by 2020, actions include:

- Member states to identify and address products that are the main sources of littering and take measures to prevent and reduce litter from these sources;
- Producers to pay for public information and communication campaigns on the prevention of littering.

It is important to highlight the significance of the implications of the above for producers. The onus will now be on producers to cover the costs of clean up for their littered products, including transport and treatment costs. In addition, producers will be required to pay for public education and awareness campaigns as a preventative measure.

The **Packaging & Packaging Waste Directive**<sup>5</sup> addresses the reduction, recovery and recycling of packaging, establishing that Extended Producer Responsibility (EPR) schemes must be implemented for all packaging by 2025.

Whereas the **Single-Use Plastic (SUP) Directive**<sup>6</sup> establishes outright bans and the reduction in consumption of specific single-use plastic items through the promotion of circular economy.

The SUP Directive imposes (implementation by 2021):

- Certain single-use plastic products will be prohibited from being placed on the market (including cotton buds, cutlery, beverage stirrers, straws, plates, balloon sticks), whilst others will be significantly reduced (including food containers, single-use plastic drinks containers will only be allowed if their caps and lids remain attached);
- Extended Producer Responsibility (EPR) schemes covering the costs of collection, transport and treatment;
- EPR to cover the costs of clean-up litter, awareness raising campaigns and data gathering for single-use plastic products (including tobacco products);
- Industry will be given incentives to develop less polluting alternatives;
- Member states to collect 90% of single-use plastic drink bottles (for example through deposit refund schemes);
- Certain products will require standardised labelling indicating how waste should be disposed, the negative environmental impact, and the presence of plastics in the product.

It is important to highlight that the specific measures set under the SUP Directive prevail over those established under the previously named Directives.

<sup>3</sup> Keep Northern Ireland Beautiful, Marine Litter Report 2018, page 4.

<sup>4</sup> Available at: <https://ec.europa.eu/environment/waste/framework/revision.htm>

<sup>5</sup> Available at: <https://ec.europa.eu/environment/waste/packaging/legis.htm>

<sup>6</sup> Available at: [https://ec.europa.eu/environment/waste/plastic\\_waste.htm](https://ec.europa.eu/environment/waste/plastic_waste.htm)

## Aims and methodology

The independent litter composition analysis took place between the 21st January–4th March 2019. It was designed and delivered by RPS Consulting Engineers. The aim was to measure the composition of different types of litter and estimate the number of littered items on NI streets at any one time. No similar analysis has been conducted in NI to date.

This report is part of a wider project funded by the Department of Agriculture, Environment & Rural Affairs (DAERA) to address the production, consumption and littering of single-use plastic in Northern Ireland.

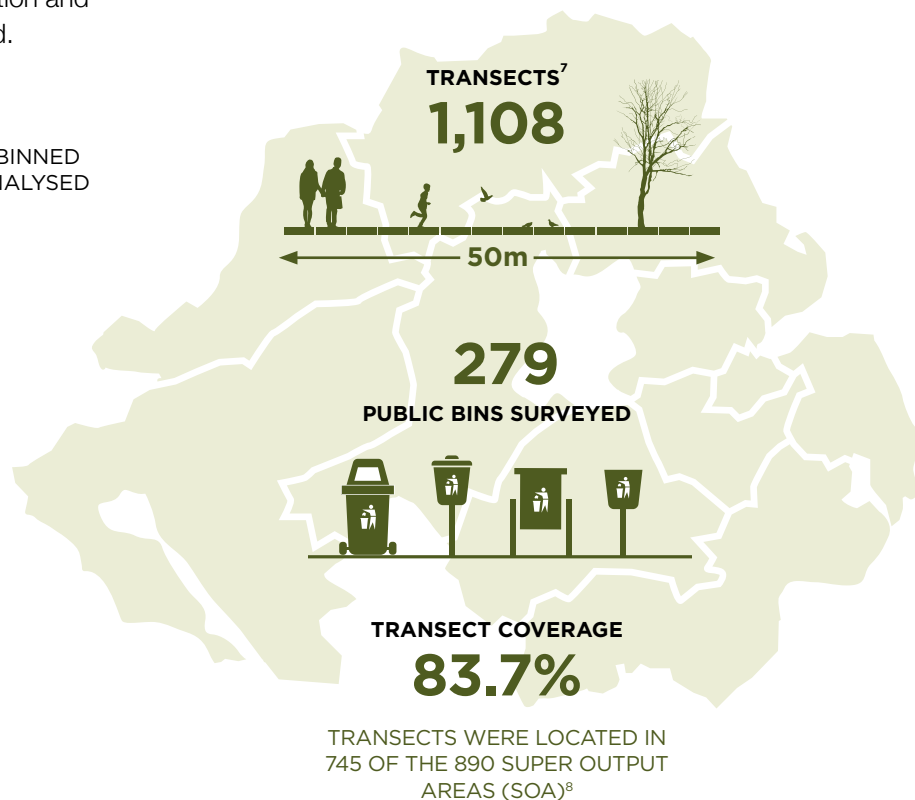
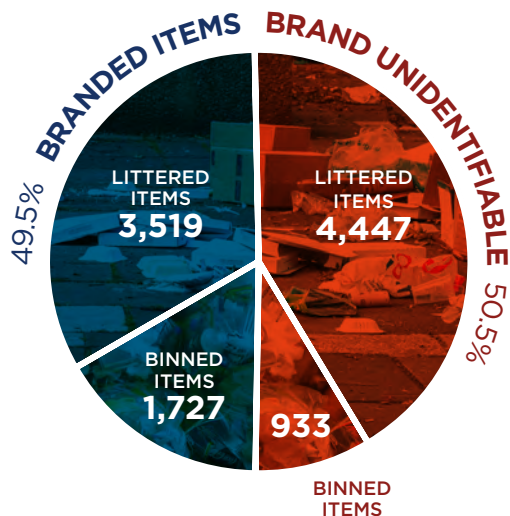
Transects were selected to ensure coverage of a broad spatial distribution of demographics throughout NI and by land use classification requirements.

Key information is outlined in the graphic below.

### SURVEY TIMES (2019)



A TOTAL OF **10,626** LITTERED AND BINNED ITEMS WERE ANALYSED



<sup>7</sup> This analysis does not cover every possible transect throughout NI. However, we can gauge how well it represents the litter problem on a national scale by using two important statistics – the survey's margin of error and confidence level. Surveying 1,108 transects and using an industry standard confidence level of 95%, provides a resulting margin of error of plus or minus 2.95%.

<sup>8</sup> NI is split into 890 SOAs. SOAs were developed by Northern Ireland Statistics & Research (NISRA) to improve the reporting of small area statistics.

The figures outlined above highlight both littered items and items placed in bins. For the remainder of this report, the number of littered items is extrapolated to show how much litter is potentially on our streets, at any one time. Extrapolated figures are based on 9,000 km of roads across NI.

## Land use types surveyed

Land use types used for this analysis were adapted from the Northern Ireland Litter Survey 2014. RPS also considered NISRA settlement boundaries when determining land use classifications.

Outlined in the table below, are the land use classifications used and percentages covered throughout the 1,108 transects surveyed

LAND USE	LAND USE DESCRIPTION	%
<b>URBAN</b>		
<b>Town/Village Centre (Primary Retail)</b>	Includes main town/city or village retail and commercial centres. Contains a choice of outlets in a range of different retail and commercial sectors. In practice, only streets in town centres that have more than 100m of continuous retail on both sides of the street.	<b>9%</b>
<b>Peripheral Retail Developments (Secondary Retail)</b>	Covers secondary retail and commercial areas located outside the main city and town retail and commercial centres, including retail parks. In order to survey these peripheral retail developments must have a continuous retail/commercial frontage of 50 metres.	<b>10%</b>
<b>Main Roads</b>	Comprises of A roads and in the following situations: a) Throughout rural areas, except where main roads run through town/village centres or peripheral developments; b) In urban areas, except where main roads run through town centres and peripheral developments.	<b>9%</b>
<b>Low Density Residential Areas (Low Obstruction)</b>	Comprises of low-density social and private housing. Includes: a) Low density social housing estates where purpose made off road parking is provided for more than 50% of houses; b) Private housing estates originally built for private purchase and located in urban, rural and commuter areas, which have off road parking for over 50% of dwellings.	<b>19%</b>
<b>High Density Residential Areas (High Obstruction)</b>	Comprises of high-density special and private housing. These include: a) Terraced housing in the inner areas of towns and cities; b) Terraced housing in industrial and post-industrial villages; c) Flats and maisonettes; d) Semi-detached and short terraced dwellings with limited or no purpose made off street vehicle parking.	<b>20%</b>
<b>Recreational Area</b>	Includes open spaces, freely accessible to the public and maintained by the council. Sites include playing fields, public parks, picnic sites, canal, lake or river sides, beaches, play areas and cycle ways (unless they are located on main roads).	<b>19%</b>
<b>Industrial and Retail sheds</b>	Out-of-town or edge-of-town 'retail park/retail shed' and industrial developments that aren't the responsibility of a private management company.	<b>5%</b>
<b>RURAL</b>		
<b>Rural Road/Rural Areas</b>	Less built up areas with countryside surrounding the areas being surveyed. Includes all adopted roads that are located outside built up areas and on a map would not be marked as main roads.	<b>9%</b>

# Composition of littered items on our streets

The graphic opposite highlights the categories of littered items,<sup>9</sup> and the amount of litter that could be on our streets at any one time.

The extrapolated figures suggest that **71.4% of littered items contain plastic**. That's a total of 924,043 items. Just over half of these items were cigarette butts, followed by confectionery wrappers, crisp wrappers and plastic bottles.

The second most common category was metals at 14.5%. This was mostly made up of non-alcoholic drinks packaging (drinks cans).

Paper was the third most common category at 9.7%, cigarette packaging, scratch cards, till receipts and bank statements were prominent.

<sup>9</sup> Excludes items found in public bins.

<sup>10</sup> See Table 1 on page 14 for breakdown of figures.

<sup>11</sup> Most recent figures suggest cleansing costs could be lower than the number stated in this report. However, after investigation, these more recent figures are not believed to be a true reflection of costs. This cost currently falls on local authorities. It does not include costs incurred by other bodies who play a part in the removal of litter from our environment, such as other major landowners, Translink and NGOs supporting voluntary clean-ups.

## We estimate that...

**1.3 million**<sup>10</sup>

items of litter are on our streets at any one time

**28 tonnes**

of litter are on our streets at any one time

**71%**

of littered items contain plastic

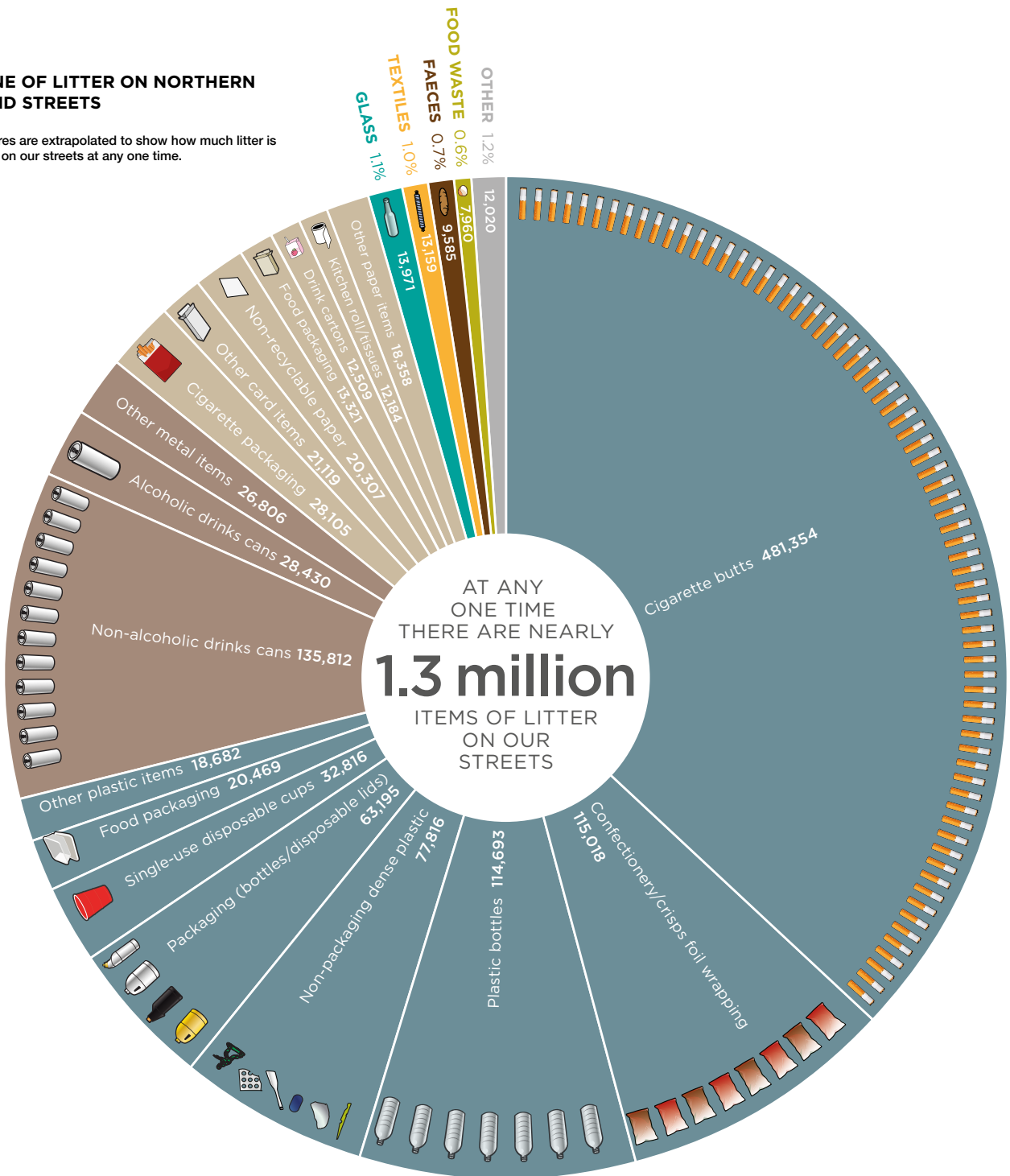
**£45 million**<sup>11</sup>

annual cost of street cleansing in Northern Ireland



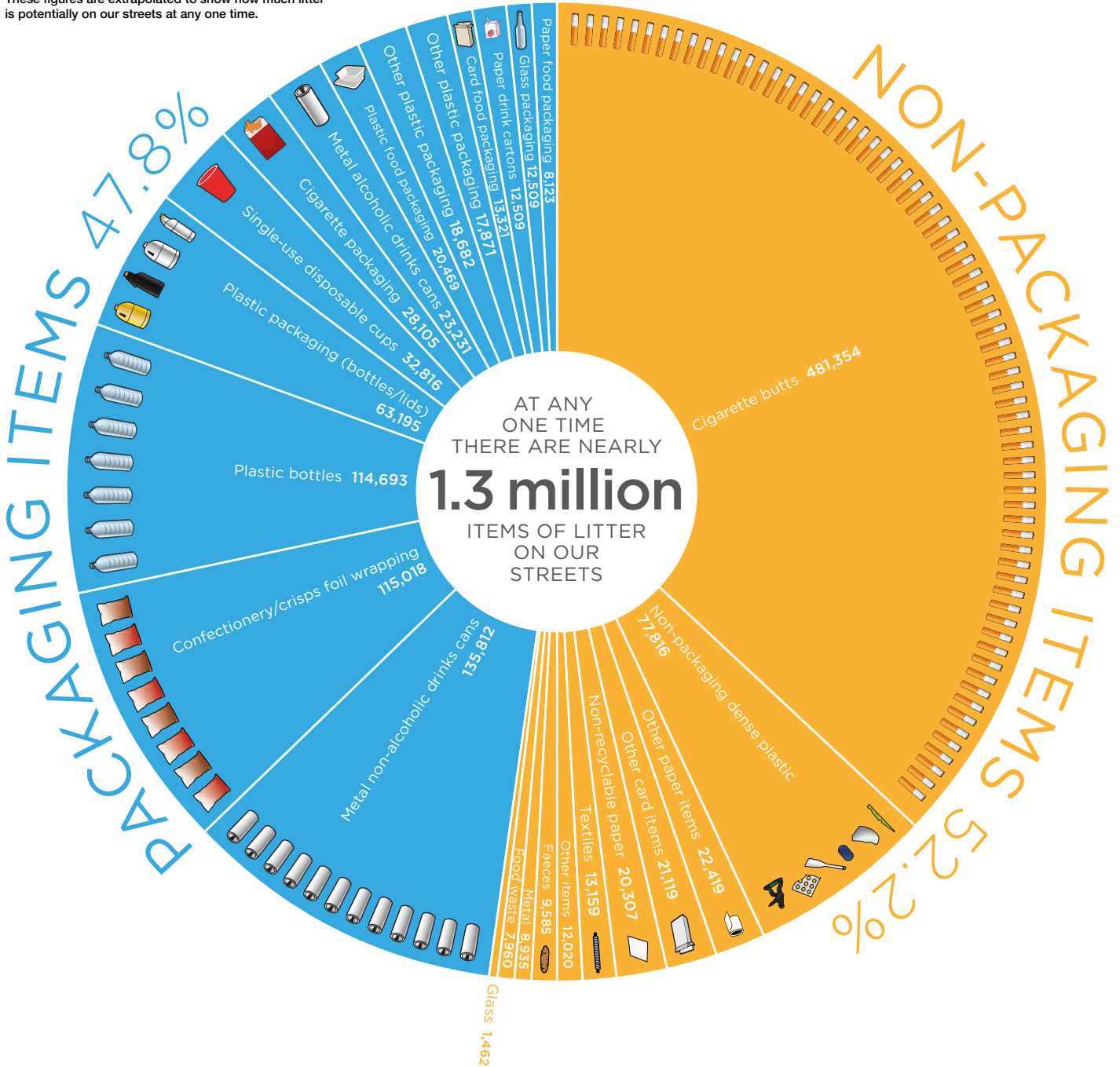
## OUTLINE OF LITTER ON NORTHERN IRELAND STREETS

These figures are extrapolated to show how much litter is potentially on our streets at any one time.



# OUTLINE OF PACKAGING AND NON-PACKAGING LITTER ON NORTHERN IRELAND STREETS

These figures are extrapolated to show how much litter is potentially on our streets at any one time.



## Packaging and non-packaging litter

It is estimated there are 617,978 littered packaging items, which include drinks cans, confectionery and crisp wrappers, plastic bottles bottle packaging, single-use disposable cups and cigarette packaging. The total for littered non-packaging items was 676,137, mainly cigarette butts, followed by dense plastic, such as straws, lighters and rubber bands.

The graphic (left) shows the split between the amount of littered packaging and non-packaging items.<sup>10</sup>

## Bin waste versus litter on our streets

The report has focused on littered items only. However, some transects surveyed also contained bins. If there was a public bin on the transect, this was also analysed during this survey. From the findings of all transects surveyed (included transects with and without bins) and transects surveyed with bins only, little change to littering behaviour was observed.



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<sup>10</sup> See Table 2 on page 15 for breakdown of figures.

# Take action together to tackle littering behaviour in Northern Ireland

Partnership and shared responsibility are essential and no organisation or one person has the answers. Nor the capacity to tackle the issue alone.

Keep Northern are taking action in a number of ways:

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## Live Here Love Here Campaign

Live Here Love Here is NI's biggest civic pride campaign and its challenging ambition, is to change our culture to prevent littering whilst still cleaning up where we live. There are currently a range of partners in the campaign representing central government, local government, business and the Environmental NGO sectors. In addition the Adopt A Spot scheme provides equipment to help groups take care of an area. The Small Grants scheme aids volunteer and community groups to undertake civic pride projects throughout NI. The BIG Spring Clean is NI's largest annual community clean-up campaign, engaging individuals, schools, community groups and businesses.



**LIVE  
HERE  
LOVE  
HERE**



## Eco-schools Programmes

Today's young people are key to tackling litter pollution now and for future generations. At Keep Northern Ireland Beautiful we run the international environmental education programme called Eco-Schools. The Eco-Schools programme combines learning and practical pupil-led action to provide an ideal way of fostering environmental awareness in the entire school.



## Young Reporters for the Environment (YRE)

We also promote locally YRE, an international network of young people involved in environmental journalism and education for sustainable development.

To change behaviour and create a cleaner environment for everyone, then investing in our future means inspiring the next generation today.



## Local Environmental Quality

Our Cleaner Neighbourhoods team focus on data collection and surveying of our local environmental quality through the Cleaner Neighbourhood, NI Litter, Borough Cleanliness and Marine Litter surveys. This data collection gives us the tools to contribute and provide consultation on local and national policy and research. We work closely with local councils and government bodies to help improve cleanliness in the environment through behaviour change, outreach, education and advice.



**We can all make a difference.**  
**We are in this together.**  
**Now is the time to act.**

For more information on all of our programmes visit [www.keepnorthernirelandbeautiful.org](http://www.keepnorthernirelandbeautiful.org)

**Table 1: Composition of all littered items on our streets at any one time**

<b>PLASTIC 71.4% (8.98 tonnes)</b>	<b>924,043</b>	<b>GLASS 1.1% (3.06 tonnes)</b>	<b>13,971</b>
Cigarette butts (contain plastic)	481,354	Alcoholic drink packaging (glass bottles)	11,372
Confectionery/crisp foil wrapping (sweet wrappers and crisp wrappers)	115,018	Other glass (broken glass)	1,137
Plastic bottles	114,693	Glass jars	650
Other dense plastic – non-packaging (straws, lighters, rubber bands etc.)	77,816	Non-alcoholic drink packaging (glass bottles)	487
Plastic packaging (bottles and disposable cup lids)	63,195	Non-packaging glass	325
Single-use disposable cup (contain plastic)	32,816	<b>TEXTILES 1.0% (2.18 tonnes)</b>	<b>13,159</b>
Plastic food packaging (yogurt and sandwich containers)	20,469	Non-clothing textiles (rope, towels)	4,711
Polystyrene packaging (takeaway containers)	13,646	Clothing textiles (gloves, socks)	4,224
Carrier bags/bin bags and other plastic film	5,036	Combustibles (soft furniture and cushions)	4,224
<b>METAL 14.5% (9.51 tonnes)</b>	<b>187,473</b>	<b>FAECES 0.7% (1.00 tonnes)</b>	<b>9,585</b>
Non-alcoholic drinks packaging (drinks cans)	135,812	Dog fouling	9,585
Alcoholic drink packaging (drinks cans)	23,231	<b>FOOD WASTE 0.6% (0.68 tonnes)</b>	<b>7,960</b>
Other ferrous metals (nails, screws, cutlery)	7,473	Unavoidable food waste (leftover food, used tea bags)	5,361
Other non-ferrous metal (bottle tops ear ring and keys)	6,823	Avoidable food waste (prepared meals, whole items)	2,599
Aluminium foil (sauce lids, crème egg wrappers)	5,199	<b>OTHER 1.2% (0.28 tonnes)</b>	<b>12,020</b>
Food packaging	3,412	Other absorbent hygiene products (tissues, wipes)	4,061
Ferrous cans and tins (food tins)	1,949	Other non-combustible materials	1,949
All scrap and other metal (bolts and locks)	1,462	Other electrical (wiring)	1,300
Non-ferrous aerosols (oil spray can and deodorants)	1,137	Potentially hazardous healthcare waste (medicines, used equipment)	1,137
Ferrous aerosols (deodorants)	975	Wood treated (chipboard, MDF)	1,137
<b>PAPER 9.7% (2.50 tonnes)</b>	<b>125,903</b>	Household batteries	812
Cigarette packaging	28,105	Other potentially hazardous (lighters)	650
Other card (scratch cards, medicine box)	21,119	Other construction and demolition waste	325
Non-recyclable paper (till receipts and bank statements)	20,307	Audio equipment (earphones)	325
Card food packaging	13,321	Electronic cigarettes/vape	162
Drinks packaging/Tetrapak (cartons)	12,509	Wood untreated (wood furniture)	162
Kitchen roll and tissues	12,184		
Other recyclable paper (paper straws)	8,448		
Paper food packaging	8,123		
Newspaper, magazines, directories	1,787		
		<b>Total</b>	<b>(28.18 tonnes) 1,294,114</b>

**Table 2: Packaging and non-packaging items on our streets at any one time****PACKAGING ITEMS 47.8%**

<b>PLASTIC 28.2%</b>	<b>364,873</b>
Confectionery/crisp foil wrapping (sweet wrappers and crisp wrappers)	115,018
Plastic bottles	114,693
Plastic packaging (bottles and disposable cup lids)	63,195
Single-use disposable cup (contain plastic)	32,816
Plastic food packaging (yogurt and sandwich containers)	20,469
Polystyrene packaging (takeaway containers)	13,646
Carrier bags/bin bags and other plastic film	5,036
<b>METAL 13.8%</b>	<b>178,538</b>
Non-alcoholic drinks packaging (drinks cans)	135,812
Alcoholic drink packaging (drinks cans)	23,231
Other non-ferrous metal (bottle tops ear ring and keys)	6,823
Aluminium foil (sauce lids, crème egg wrappers)	5,199
Food packaging	3,412
Ferrous cans and tins (food tins)	1,949
Non-ferrous aerosols (oil spray can and deodorants)	1,137
Ferrous aerosols (deodorants)	975
<b>PAPER 4.8%</b>	<b>62,058</b>
Cigarette packaging	28,105
Card food packaging	13,321
Drinks packaging/Tetrapak (cartons)	12,509
Paper food packaging	8,123
<b>GLASS 1.0%</b>	<b>12,509</b>
Alcoholic drink packaging (glass bottles)	11,372
Glass jars	650
Non-alcoholic drink packaging (glass bottles)	487
<b>Total</b>	<b>617,978</b>

**NON-PACKAGING ITEMS 52.2%**

<b>PLASTIC 43.2%</b>	<b>559,170</b>
Cigarette butts (contain plastic)	481,354
Other dense plastic – non-packaging (straws, lighters, rubber bands etc.)	77,816
<b>PAPER 4.9%</b>	<b>63,845</b>
Other card (scratch cards, medicine box)	21,119
Non-recyclable paper (till receipts and bank statements)	20,307
Kitchen roll and tissues	12,184
Other recyclable paper (paper straws)	8,448
Newspaper, magazines, directories	1,787
<b>TEXTILES 1.0%</b>	<b>13,159</b>
Non-clothing textiles (rope, towels)	4,711
Clothing textiles (gloves, socks)	4,224
Combustibles (soft furniture and cushions)	4,224
<b>FAECES 0.7%</b>	<b>9,585</b>
Dog fouling	9,585
<b>METAL 0.7%</b>	<b>8,935</b>
Other ferrous metals (nails, screws, cutlery)	7,473
All scrap and other metal (bolts and locks)	1,462
<b>FOOD WASTE 0.6%</b>	<b>7,960</b>
Unavoidable food waste (leftover food, used tea bags)	5,361
Avoidable food waste (prepared meals, whole items)	2,599
<b>GLASS 0.1%</b>	<b>1,462</b>
Other glass (broken glass)	1,137
Non-packaging glass	325
<b>OTHER 1.2%</b>	<b>12,020</b>
(See table 1)	
<b>Total</b>	<b>676,136</b>

Be transparent about the action you are taking to tackle plastic pollution in Northern Ireland, make your Plastic Promise  
**[www.liveherelovehere.org/plasticpromise](http://www.liveherelovehere.org/plasticpromise)**



For more information please contact:

**Claire Hudson**

SINGLE USE PLASTIC COORDINATOR

[claire.hudson@keepnorthernirelandbeautiful.org](mailto:claire.hudson@keepnorthernirelandbeautiful.org)

T 077 8566 3604

[www.keepnorthernirelandbeautiful.org](http://www.keepnorthernirelandbeautiful.org)



Email [info@keepnorthernirelandbeautiful.org](mailto:info@keepnorthernirelandbeautiful.org) Registered Address Bridge House,  
2 Paulett Avenue, Belfast BT5 4HD Registered Charity No XR36767  
NI Charity No NIC 102973 Company No NI38848 VAT Reg No 860 2036 57

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