



# The composition of household waste at the kerbside in 2014-15

## Frequently Asked Questions



**EUROPE & SCOTLAND**  
European Regional Development Fund  
Investing in a Smart, Sustainable and Inclusive Future

# 1 About the research project



Zero Waste Scotland has published new research on the composition of household waste at the kerbside in 2014-15.

## Our analysis includes:

- How much is collected at the kerbside in total?
- What is thrown away in the non-recyclable (residual) waste bin?
- Changes in what we throw away in the residual waste bin since 2009
- How many items that could be recycled at the kerbside, are actually recycled?
- How common is it for the wrong items to end up in mixed recycling collections?

We have produced a summary report and excel dataset of the main findings, and a detailed methodology report that describes what we did. We have produced this set of frequently asked questions to aid interpretation of the findings and place them in the context of our wider work.

## What did the research involve?

Our research consisted of two key components - the physical analysis of household waste from eighteen local authorities between 2013 and 2015, which was then combined with household waste data reported by all thirty-two local authorities on waste data flow, in order to estimate a national picture of household waste composition. Household waste sampling was carried out by experienced, professional contractors, closely working with local authority waste management teams. The contractors followed a prescribed methodology<sup>1</sup>, which included staff training, supervision, the safe and secure handling of waste, and communicating with householders about the work.

## Why spend money sorting through what we throw away?

Disposing of non-recyclable waste is harmful to the environment, a waste of valuable resources and costs local authorities a lot of money. Scotland has made considerable progress in reducing the overall quantity of household waste sent to landfill, but there is still more to be done. Waste composition analysis allows us to identify how much of

a particular waste type is thrown away and recycled (and therefore identify opportunities for waste prevention and recycling). The findings will be used by local and national government to inform their waste management policy and communications, and support technical practitioners working in the fields of resource management and the circular economy. Zero Waste Scotland delivered a similar project in 2008-09<sup>2</sup>, so the current research is an important update on what we throw away and recycle.

## Which types of household waste do the current findings relate to?

Composition analysis focused on household wastes set out for disposal and recycling at the kerbside, since this makes up the bulk of household wastes managed by local authorities. We exclude household wastes collected at non-kerbside locations, such as recycling points and household waste recycling centres. Therefore, it's worth noting that Scotland's overall household recycling performance is not identified in our kerbside analysis alone, but is measured and reported annually by SEPA.

## The waste composition analysis used in this research was conducted between 2013 and 2015. Are the findings still relevant in 2017?

The current findings are the most up to date national picture of what we throw away and recycle at the kerbside. All waste composition analysis is by nature a snapshot in time. The current study uses waste tonnage data reported by local authorities in 2014 and 2015 on waste data flow. Since the waste composition studies were conducted a number of local authorities have made changes to residual waste collection frequencies and/or rolled out additional recycling services, which may have altered residual waste composition within their authority. However, it's worth noting that at a national level the latest household waste data for 2016 suggests a relatively small change in the quantity of household residual waste collected at the kerbside<sup>3</sup>.

## Does the current study provide information on the composition of waste produced by businesses?

No, the current work focuses on household waste collected at the kerbside. Zero Waste Scotland has previously conducted the following waste composition analysis of business waste:

- The composition of mixed wastes produced by three key sectors<sup>4</sup>, it's worth noting that this study took place prior



to the implementation of the Waste (Scotland) Regulations<sup>5</sup>, so the composition of what businesses throw away and recycle could be quite different.

- Contamination levels in some business recycling collections<sup>6</sup>.





## 2 Using the findings from this research

### **Is composition data available for the individual local authorities who participated in the study?**

Zero Waste Scotland has not published individual local authority data as part of this project, and not all local authorities in Scotland were involved. The local authorities who participated in waste composition analysis were supplied with estimates for residual waste composition and overall kerbside composition for their own purposes, but the national study prioritised obtaining a representative national picture. A list of the local authorities who participated in waste composition analysis is provided in the methodology document.

### **Can I compare the performance of individual local authority recycling services?**

No. In the summary report we provide analysis on the degree to which eight recyclable materials are actually recycled at the kerbside, but individual analysis for each local authority is not provided. Our analysis is based on the eighteen local authorities that took part in the national waste composition study. It is not appropriate to include local authorities that did not take part in waste composition studies, so a national comparison would not be possible in any case. SEPA publishes annual household waste and recycling figures in the autumn each year, including individual local authority data<sup>7</sup>.







## 3 Wider context to the findings

### **Why is so much food waste still thrown away in the residual waste bin? Didn't councils introduce food waste collections over the last few years?**

The amount of food waste in residual waste collections has fallen by 90,000 tonnes since Scotland last undertook detailed compositional analysis, despite a growing population. This reflects both the introduction of food waste collection services, and waste prevention by householders. But the research estimates around 330,000 tonnes of food waste was still thrown away in the residual waste in 2014-15, making food waste the single largest component of what we throw away. The current study took place at a time of significant change in local authority recycling services, including the introduction of additional food waste collections. Local authorities reported separately collected food waste of 38,301 tonnes, 55,244 tonnes and 62,203 tonnes in 2014, 2015 and 2016 respectively. They also reported 102,330 tonnes, 104,968 tonnes and 135,296 tonnes of mixed food and garden waste in 2014, 2015 and 2016 respectively<sup>8</sup>. More recent local authority data therefore suggests there has been a relatively modest reduction in the quantity of food waste thrown away in the residual waste (via increased capture in recycling services), but we think our estimates for what is thrown away are still broadly representative of the scale of the issue.

Zero Waste Scotland is closely engaged with local authority Waste Management officers to support them to maximise the capture of food waste and other materials for recycling, the driving force behind this support is the Household Recycling Charter which was launched in 2016. The Love Food Hate Waste campaign also works with householders to reduce food waste arising in the first place. This supports the Scottish Government's target to reduce food waste by a third by 2025. Zero Waste Scotland is also working with sites that process food waste, to promote best practice and identify solutions to difficulties arising from the presence of non-food waste. We are particularly keen to promote sharing of information between site operators and local authorities where this will help increase the proportion of food waste being collected and treated.

### **The research highlights there are lots of recyclable materials being thrown away. Will a deposit return scheme solve this problem?**

Zero Waste Scotland recently published research on whether a deposit return system (DRS) would work in Scotland and what the key considerations might be in implementing a

system<sup>9</sup>. The Scottish Government has recently asked Zero Waste Scotland to investigate design options for a scheme<sup>10</sup>. The exact scope of materials included in the scheme is one aspect of the design, but it will not cover all of the recyclable materials that are currently thrown away in the residual waste. For example, a combination of preventing food waste occurring in the first place<sup>11</sup> and recycling what's left is likely to remain the best approach to reducing how much food waste we throw away. There are also significant quantities of waste (e.g disposable nappies) where it remains challenging to establish sustainable recycling services.

Zero Waste Scotland is working closely with local authority Waste Management officers to introduce and improve collection services and to share best practice. Our work on the Household Recycling Charter will lead to more consistent collections and clearer communications.

### **The research estimates that the quantity of plastic films thrown away has increased since 2009. Does this mean the carrier bag charge introduced in 2014 has not worked?**

Zero Waste Scotland published research on the impact of the carrier bag charge in 2015<sup>12</sup>, which concluded a reduction in the region of 80%, or at least 650 million fewer bags being used. We think that work is the best evidence to assess the impact of the carrier bag charge.

We highlight in the report that our estimates for plastic films generally should be treated with some caution, as they are particularly prone to contamination with other waste during composition analysis. The evidence we do have for "plastic films" includes other plastic films (typically flexible food packaging), waste bin liners and carrier bags. Our evidence suggests that all of the increase in plastic films being thrown away between the two periods is due to other plastic films, which could reflect both the increased use of this packaging type in household groceries and a lack of recycling services for this waste.



## 4 References

<sup>1</sup> See [http://www.zerowastescotland.org.uk/sites/default/files/WCAMethodology\\_Jun15.pdf](http://www.zerowastescotland.org.uk/sites/default/files/WCAMethodology_Jun15.pdf)

<sup>2</sup> <http://www.zerowastescotland.org.uk/content/composition-municipal-waste-scotland>

<sup>3</sup> In 2016 local authorities reported 1.09 million tonnes of household residual waste collected at the kerbside in total, which was a reduction of approximately 21,000 tonnes on 2015.

<sup>4</sup> <http://www.zerowastescotland.org.uk/content/composition-mixed-waste-scottish-health-and-social-care-education-motor-wholesale-and-retail>

<sup>5</sup> <https://www.sepa.org.uk/environment/waste/zero-waste/>

<sup>6</sup> <http://www.zerowastescotland.org.uk/sites/default/files/Contamination%20in%20source-separated%20municipal%20and%20business%20recyclate%20in%20the%20UK%20report.pdf>

<sup>7</sup> See <https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/household-waste-data/>

<sup>8</sup> The food portion of mixed food and garden waste is typically estimated by SEPA as 25%.

<sup>9</sup> <http://www.zerowastescotland.org.uk/content/deposit-return-system-feasibility-study>

<sup>10</sup> <http://www.zerowastescotland.org.uk/news-article/zero-waste-scotland-investigate-deposit-return-design-options>

<sup>11</sup> See <https://scotland.lovefoodhatewaste.com/>

<sup>12</sup> <http://www.zerowastescotland.org.uk/sites/default/files/SUCB%20Charge%20One%20Year%20n%20Report.pdf>



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