

## Briefing note for JWMB; Composition analysis comparisons (2007 / 2019)

### Overview

A full waste composition analysis was undertaken in 2007 by a consultant (Entec) as part of the creation of the Joint Municipal Waste Management Strategy for Staffordshire and Stoke on Trent in the same year. A composition analysis was undertaken of residual waste only in 2019, by Keele University, as part of the preliminary works for the creation of a new strategic pathway (which was later put on hold pending legislative changes and global economic issues). Between 2007 and 2019, there have been many changes in local authority waste services across Staffordshire, not least the shift to fortnightly alternate collections for recycling and residual waste. This briefing note will compare the results of the composition analysis from 2007 with 2019 to assess the changes during that time period.

### Results

In general the 2007 Entec study revealed in the main;

- Residual waste comprised of excessive amounts of dry recycling materials, lots of food, and some garden waste.
- Residual waste fluctuated throughout the year (higher in summer), whereas dry recycling levels were more stable.

In general the 2019 Keele University study revealed in the main;

- Residual was comprised of lots of food, but very little garden or recycling materials.
- There was very little demographic or seasonal fluctuation in waste volumes/ types.

### Changes

When comparing the data from 2007 to 2019 on residual waste composition, it is clear that the vast improvements on the collection services of the waste streams, along with changes to social norms and the variety of materials able to be reprocessed, has had a huge and positive impact on the composition of our residual waste. The introduction of fortnightly alternate collections; the expansion of items able to be recycled / processed; the introduction of separate collection streams for garden and food waste; the expansion of waste accepted at extended HWRC network; and the embedding of recycling as an expected part of British culture has resulted in far less recyclable waste being present in with residual waste. The table below provides comparable figures of waste in the residual collection to highlight the changes;

| Waste category in residual stream | 2007 results | 2019 results | Change             |
|-----------------------------------|--------------|--------------|--------------------|
| Dry recycling materials           | 49%          | 15%          | 34% point decrease |
| Food                              | 27%          | 31%          | 4% point increase  |
| Garden                            | 7%           | 2%           | 5% point decrease  |
| Textiles                          | 4%           | 6%           | 2% point increase  |
| WEEE                              | 3%           | 2%           | 1% point decrease  |
| Other*                            | 10%          | 44%          | 34% point increase |

\*Non-recyclable items, such as nappies, polystyrene etc.

This table clearly shows that, whilst there has been little change in WEEE or textiles, garden waste in the residual collections has decreased, to coincide with the introduction of separate garden waste collection. The main difference is the dramatic decrease in the presence of dry recycling materials, which coincides with the aforementioned improvements to recycling collections. The results do highlight the remaining issue in the residual waste to be the presence of food, which is expected to be resolved in coming years, with the anticipated legislation, introducing mandatory separate food waste collections over the next few years across the country.