Nottinghamshire Waste Partnership

Route Map for the

Revised Waste Framework Directive (rWFD)

Local Authority Compliance Template

For Nottinghamshire Waste Collection Authorities

Version 1, January 2015: Date of sign Off 20th April 2015.

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Local Authorities	Ashfield District Council Bassetlaw District Council Broxtowe Borough Council Gedling Borough Council Mansfield District Council Newark & Sherwood District Council Rushcliffe Borough Council
Date of assessment	October 2014 – January 2015 The assessment period covers data between April 2013 – March 2014
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1. Acknowledgement

Following the revision to the Waste Framework Directive (2008/98/EC) The Waste (England & Wales) Regulation 2011 as amended by re Waste (England & Wales) Regulation 2012 were made, requiring assessments of current services against the waste hierarchy for all waste streams (regulation 12) and source segregation collection methodologies for the four key materials types (regulation 13), Staffordshire Waste Partnership (SWP) have created a template to provide a framework for local authorities' responses to the assessment requirements, as provided by the Route Map, by offering guidance on assessments in the form of step by step guide, with 'tests' to determine the likelihood of meeting the regulation requirements. The SWP are happy that other authorities use this template to meet those requirements. This template has been adjusted to suit the needs of the Nottinghamshire Waste Partnership (NWP).

2. Regulation Background

In the absence of any case law and formal government guidance, the Route Map forms the basis for tackling the recent legislative changes. Assessments are required to be undertaken per Local Authority, using specific data relating to current services.

Under regulation 13, a ***necessity test*** and ***practicability test*** are conducted, which incorporates the acronym **TEEP** (*technically, environmentally and economically practicable*). The overall aim of this route map is to arm each council with enough evidence to justify its chosen collection methodologies should the council be legally challenged, when the regulations come into force in **January 2015** or to highlight where changes to methodologies need to be implemented in order to ensure compliance.

3. Route Map Overview

- Steps 1 and 2 are background information to set the scene of our current services.
- Step 3 covers regulation 12 for the waste hierarchy.
- Step 4 covers regulation 13 for source segregation tests, necessity / practicability tests.
- Steps 5 to 7 are post assessment, involving sign off, evidence retention and re-evaluation.

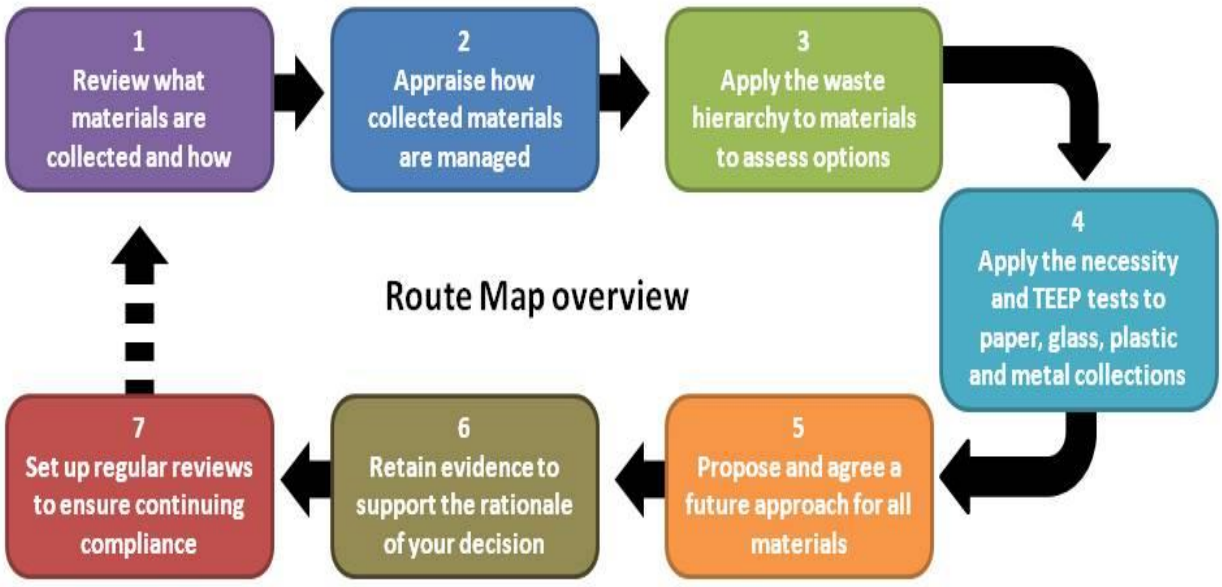

Figure 1 Revised Waste Framework Route Map - Overview Diagram

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4. Introduction

In order to meet the requirements the Nottinghamshire Waste Partnership (NWP) through its Joint Waste Management Committee has agreed to jointly carry out the assessment in the interest of synergy and flexibility in future developments. This collaborative assessment therefore includes the seven Waste Collection Authorities of Ashfield District Council, Bassetlaw District Council, Broxtowe Borough Council, Gedling Borough Council, Mansfield District Council, Newark and Sherwood District Council, Rushcliffe Borough Council, but excludes Nottingham City Council who should be undertaking their own assessment. The WDA has also to complete its own assessment, it is intended that both documents will complement each other should any district be challenged. The information provided by WCA's has been recorded against each so at a glance data can be seen at a core level.

The data and results from each of the authorities have been compiled and are incorporated into this assessment as a single document for ease of use. As the Regulations apply directly to the Waste Collection Authorities undertaking the collections, as such they will individually need to take their own view on the applicability of the assessment, and individual sign-off requirements within their Council Scheme of Delegation.

5. Supporting Documentation Library

The authors of this document have created a library of supporting documents that have been used throughout this assessment to support the findings, we have not referenced each document as would be done in a report rather they are there for reference only. Within this library are some of the legal documents, information and letters from DEFRA as well as the Environment Agency.

Please see supporting documents library page 37.

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Step 1 - What Waste Is Collected & How

Step 1.1:This section provides the compositional analysis relied upon in our work, and states how it was derived (e.g. from national figures, or a local survey) alongside any other relevant information.

Refer to Appendix 1: this has been collated to show all WCA's data waste analysis in a single source.

This datasheet shows individual compositional analysis of residual waste. Only two of the seven WCA's have their own compositional analysis to refer to, (Broxtowe in 2008 and Rushcliffe in 2010) this has been reflected in the calculations for this question. All remaining districts data is formed using the national analysis carried out by Resource Futures in 2010 for Defra EV0801. Although this analysis is not the only source of data available, it does represent a viable data source. The appendix shows the likely % of overall capture through current schemes, not the actual as it is based on an analysis breakdown of the bin rather than actual and collections recorded in WasteDataFlow.

It is recognised by the current officer(s) from each WCA who have not carried out their own compositional analysis the best approach is to use national figures. This gives some uniformity of data across the NWP and may be used in future comparisons.

Ashfield District Council - No analysis, national data used.

Bassetlaw District Council - No analysis, national data used.

Broxtowe Borough Council - The compositional analysis for Broxtowe Borough Council was carried out by M.E.L in 2008

Gedling Borough Council - No analysis, national data used.

Mansfield District Council - No analysis, national data used.

Newark & Sherwood District Council - No analysis, national data used.

Rushcliffe Borough Council - The compositional analysis for Rushcliffe was carried out by M.E.L Research in 2010.

Extract from Broxtowe Borough Council Project: 0714, Research date March 2008, Report date May 2008

(Please note this extract refers to current tense rather than past although is from 2008)

In May 2008 the waste department at M·E·L Research was commissioned to carry out a single phased waste analysis that would provide estimates of the composition and quantities of Kerbside collected household waste and recycling within the Broxtowe Borough Council area. Currently, combined recycling and composting rates are nearly 36% (2005/06). The compositional analysis will be centred primarily on the residual doorstep collection, with dry recycling waste collections also being analysed. Results from the analysis of these two waste streams will cover the following:

- Provide baseline residual and dry recycling waste generation rates and composition
- Give information on the concentrations and levels of potentially recyclable materials remaining within the residual waste.
- Determine participation rates for all waste streams analysed.
- Show the biodegradable, packaging, WEEE and hazardous content of kerbside collected waste.
- Gain information on the levels of waste diversion and capture of recyclable materials.
- Highlight areas of contamination within the recycling collection streams.
- Establish links between varying socio-economic groups and variations in waste generation behaviour.

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The results of the compositional analysis will also lead to more informed policy-making; improved customer satisfaction, and effective evidence-based service provision. The information will assist Broxtowe Borough Council in being able to:

- Provide a stronger evidence base informing the Boroughs future biodegradable waste treatment strategy.
- Implement better targeted, more effective and better performing kerbside recycling schemes.
- Identify the amount of recyclate being missed by non-participating households.
- Provide a stronger evidence base for increasing recycling performance by targeting priority social groups.
- Possess better long term tracking and performance monitoring.
- Deliver an Action Plan for the WCA.

The report details the methodology used, presents the results in tables and charts and discusses the findings. The views and opinions expressed in this report are those of M.E.L Research Ltd. and are not necessarily shared by officers from Broxtowe Borough Council.

Summary of Residual Waste Results

What is ACORN =Acorn is a powerful consumer classification that segments the UK population. By analysing demographic data, social factors, population and consumer behavior, it provides precise information and an understanding of different types of people.

- Participation was highest in Acorn 3 and 5 areas at over 90% for residual waste, Acorn 2 and 4 households participated least with around three quarters setting out waste. On average 86% of Broxtowe residents can be expected to place out residual bins for collection.

- Acorn 3 households produced the most residual waste, averaging 13.44kg/hh/wk. Acorn 1 and 2 households generated much lower levels of residual waste at 6.7kg/hh/wk – 5.8kg/hh/wk respectively. On average residents in Broxtowe is placing 9.96kg/hh/wk of residual waste at the kerbside.

- Table 1.2 shows average UK biodegradability of residual waste to be around 68%. The average biodegradability of waste throughout Broxtowe was lower at around 61.6%. Acorn 3 waste was around 70% biodegradable whilst that from Acorn 4 was just 36% biodegradable.

- Residual waste also has a packaging content, mainly associated with foods. The highest levels of packaging waste were found in the residual waste from Acorn 2 at 18.4%, this compares with 9.7% in Acorn 5. The average packaging content of waste throughout Broxtowe was around 12.6%. The correct recycling of plastic bottles, cans and cardboard would help to reduce packaging concentrations within the residual waste.

- Of the residual waste hand sorted a proportion is deemed to be potentially recyclable. That is to say that it is compatible with one of the current Kerbside recycling schemes available. Less than 10% of Acorn 4 and 5 residual wastes could have been recycled compared with over a quarter of Acorn 2 and 3 wastes. Broxtowe households produce residual waste where an average of 19.1% or 1.98kg/hh/wk could have been recycled.

Extract from Rushcliffe Borough Council Project: 10066, Research Date July 2010, Report Date August 2010.

(Please note this extract refers to current tense rather than past although is from 2010)

This analysis compared the amount and composition of household residual waste surveyed from the current collection service in operation throughout Rushcliffe. The report gives information on waste data obtained during July 2010. Households were selected from a mixture of kerbside properties

representing a range of socio-demographic groups. Current combined recycling and composting rates for Rushcliffe Borough Council are set at 52.9% (2008/09). In addition to the residential kerbside waste, a small sample of collected litter waste was also compositionally sorted.

The Borough Council required a detailed and comprehensive waste compositional analysis to provide data on general waste levels and the degree to which potentially recyclable materials are being disposed of in the residual waste. This survey therefore gave information on the composition of waste in general and with relation to the materials recycled at the kerbside. By comparing results obtained from differing Acorns, the information was used to give representative waste data for the region as a whole. More detailed observations related to individual demographics and housing type are contained within the report; however the main findings of the survey are shown below:

Key Findings

Kerbside Residual Waste

- On average 85% of households with kerbside collections of residual waste throughout Rushcliffe present residual waste for collection.
- In terms of waste generation, kerbside households were setting out an average of 6.37kg/hh/wk of residual waste.
- Overall 7.3% of residual waste collected from kerbside properties could have been placed into the blue recycling bins currently available – the equivalent of 0.45kg/hh/wk.
- Just 0.9% of all collected residual waste was classified as recyclable garden waste – the equivalent of 0.05kg/hh/wk.
- In total 8.1% of residual waste collected from kerbside properties could have been recycled at the kerbside via one of the available collections – the equivalent of 0.51kg/hh/wk.
- Over a third (39.7%) of collected kerbside residual waste was classified as food and drink waste – the equivalent of 2.53kg/hh/wk.
- Residual waste had an average biodegradability of 61.3% and a packaging content of 14.8%.
- In relation to the 2009/10 NI191 target of 465kg/hh/yr of residual waste, this survey shows an average residual waste disposal rate of 333kg/hh/yr.

Litter Waste

- Around 8% of litter waste was made up of materials accepted for kerbside blue bin recycling.
- 44% of recyclable items were due to paper and card with 37% being plastic bottles and 19% being recyclable metals.
- Glass was a major component of the litter waste forming 27% of the total. Over 19% of collected litter waste was due to potentially recyclable glass bottles.

Background

In July 2010, Rushcliffe Borough Council commissioned M·E·L Research to carry out a study of the quantities and composition of Kerbside collected residual waste. Samples of waste were collected directly from households that set out waste individually. Rushcliffe residents currently have access to a three bin collection service covering residual waste, co-mingled dry recyclables and garden waste. Each bin is collected on a fortnightly basis.

Objectives

To gather evidence about the levels and composition of residual waste being presented by differing demographics and household types within Rushcliffe.

Primary objectives of this survey were typically:

- To ensure all composition analyses are up to date for the Borough Council.

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- To provide current baseline data for waste levels and set out rates.
- To analyse the amount of currently and potentially recyclable materials within the residual waste.
- To provide information of the biodegradability and packaging content of the residual waste.

Knowledge obtained from the analysis would lead to the following outcomes:

- The Borough Council having baseline data to which they will be able to compare future changes in collections/behaviour, etc
- Understanding of volumes and types of waste residents throw away in their refuse bins (evidence base for key waste reduction messages/publicity campaigns)
- Showing changes in waste disposal behaviour when compared with previous waste audits.

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Step1.2 Provides a detailed description of our collection methods for each waste stream.

Refer to Appendix 2: this has been collated to show all WCA districts data in a single source and is split into two sections and shows kerbside and bring collections.

Kerbside Collection Services

All WCA's within the NWP are Direct Service Organisations (DSO) where collections at the kerbside are provided without third party contractors. The only exception to this is the partnership between Newark and Sherwood District Council and Nottinghamshire County Council with a charity group called Recycling for Ollerton and Boughton (R.O.B) who collect glass from properties in the Ollerton area.

A range of waste containers and vehicles are used to facilitate collections in the most economical way. Only the minimal use of sacks, boxes or bags are considered by each WCA, where appropriate, if there is no other way to reduce the need for manual handling, to facilitate collections. All WCA's collect wastes over an Alternate Weekly Collection AWC period, providing a residual waste service one week and dry recycling/composting the following week.

For those who provide a glass collection service this is carried out using a box/bag and is offered over a range of monthly or two weekly collections.

Bring Sites Services

The aim of this section is to show as previously how wastes are collected at bring sites throughout the NWP. In general terms the items collected at bring sites are those where there is currently no kerbside facility within the input specification for the Nottinghamshire wide 26 year Private Finance Initiative, which is a disposal contract between Nottinghamshire County Council and Veolia Environmental Services.

Each district has its own strategies to provide these services and make use of its own DSO resources, partners or contractors to provide that for them, Broxtowe do however provide a co-mingled service at some bring sites. All bring site materials are collected source segregated from kerbside collections and in all cases no 'Glass bottles & Jars' are collected with any other material. Bring sites wastes do attract a recycling credit from the WDA at the current rate of £52.20 although data within this assessment was paid at a rate of £50.68 per tonne for wastes diverted away from landfill. That recycling credit is claimed directly by each district from the WDA.

The decision to collect either kerbside or via a bring site system was based on the individual strategies of each authority. The precise details of those decision making processes are no longer available; they may have been based on the economic or political pressures operating on each authority at the time the co-mingled service was launched or simply a continuation of a service that existed before the co-mingled system was proposed.

Trade Waste Collections

Trade waste collection information is not included within this appendix. It should be noted though all WCA's less Rushcliffe Borough Council do provide a trade waste collection service for residual wastes, Ashfield District Council, Broxtowe Borough Council, Mansfield District Council and Newark & Sherwood District Council also provide a trade collection service for recyclable wastes also utilising the co-mingled collection system.

All districts that offer a trade collection service are obliged to deliver those wastes to the respective tipping points operated by the PFI contract.

Of the seven districts only Ashfield District Council offers a specific commercial waste glass collection service alongside their existing customer base, however when requests are made the other WCA's may arrange or signpost interested businesses to specialist re-processors or collectors who collect

glass separately, most of the licenced and hospitality trade currently utilise these services. It should be noted that many authorities do provide glass recycling sites which are placed at commercial premises with the proviso that they are open to the general public to use.

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Headline Total Costs & Income

Step 1.3 Using headline budget figures for the last financial year, we have provided workings of the total costs (operational costs to provide the service, including staff) and any income (total) for the last financial year.

Refer to Appendix 3: this has been collated to show all WCA districts data in a single source.

Each district follows a different financial model to calculate its headline budget figures; with this in mind the NWP has previously collated information to show all WCA districts financial data in a single sheet. This sheet formed part of the previously produced shared NWP Business Case. This sheet does not show figures for each waste stream rather it shows an overall budget assessment.

The sheet shows both expenditure and income.

Expenditure is further broken down into:

- Staff Costs
- Vehicle & Plant and Direct Operational Costs
- Operational supplies
- Waste Disposal (WDA Charges)
- Contract Payments/Sub Contractors
- Direct & Departmental Administrative Costs
- Central Establishment Charges

Income is further broken down into:

- Contract Income
- Discountable Non-contract Income

There is a summary table showing Expenditure v Income at the foot of this appendix.

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Current Collection Services

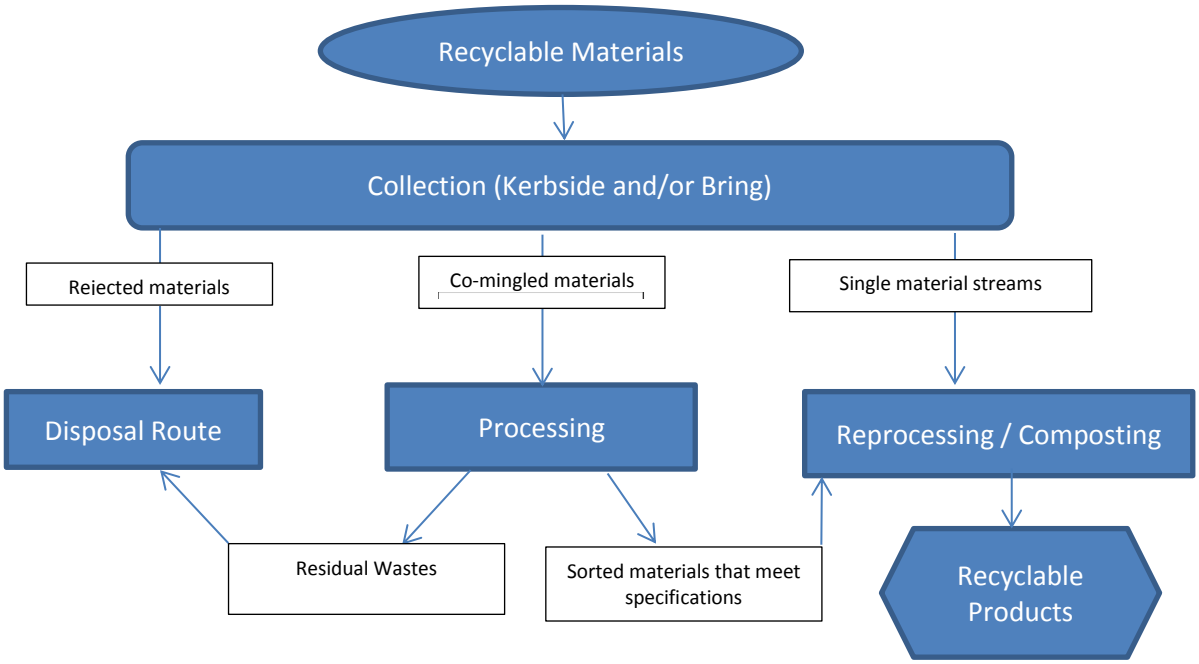
Step 1.4: Shows tonnages of material of each type collected through each method.

Refer to Appendix 4: this has been collated to show all WCA districts data in a single source.

To understand the current service offering you have to go back as far as The Landfill Directive (1999/31/EC) which was transposed into English and Welsh legislation through the Landfill (England and Wales) Regulations 2002 and 'Waste not Want not' to understand how the NWP WCA's derived their collection systems. This in conjunction with the Landfill Trading Scheme (LATS) created drivers to change collection methods.

In particular the overall aim of this directive was to deal with the social, environmental and economic impacts of landfill as a disposal option while simultaneously improving general waste management practices. It aimed to address the need for future improvements in landfill practices across the EU with the key directive provisions relating to the gradual reduction of Biodegradable Municipal Solid Wastes (BMW) going to landfill, primarily by promoting alternatives such as recycling composting and energy recovery from wastes. The United Kingdom along with other countries with a dependence upon landfill, were granted a four year derogation to meet the targets imposed by the directive. The directive stated that amount of BMW sent to landfill must be reduced first by 75% by weight of 1995 levels by 2010 then 35% by 2020. The challenge was to design a collections scheme which met the directive and gave an environmental, economic and social value to both the WCA's and the resident.

Figure 2 below provides an overview of system design.



The Gershon Efficiency Review was a review in the UK public sector conducted in 2004-05 that had the mantra of '*More for the same or the same for less'*, this undoubtedly did have an indirect effect on the kerbside recyclable collection system developed in Nottinghamshire. At that point in time the Nottinghamshire PFI was only in its expression of idea stage, so collection of compostable and recyclable wastes was down to each WCA's particular recycling strategies.

It wasn't until 2006 when the 26 year PFI contract was awarded to Veolia Environmental Services that the NWP Collection Authorities adopted the use of the WDA disposal contract for the collection of the current input specification. Each district used its own autonomy to decide what was the most

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financially, environmentally and practical way to present wastes for disposal based on the sorting infrastructure installed at the MRF and the collection infrastructure they already had in place. This led districts down the route of a co-mingled delivery for paper & card, mixed food & drinks cans and plastic bottles only. In respect of plastics, bottles were chosen as at the time bottles were made of the predominant polymer type that could be economically recovered from the plastics stream, although yoghurt pots and margarine tubs were included at a later date. The inclusion of Pots, Tubs & Trays (PTT's) was not part of the input specification as these items had no market value at the time of contract inception.

The roll out of the alternate weekly collection twin bin schemes across all WCA's was delivered over varying time scales but as a guide the period was between 2 to 3 years. Many districts already had their own in house agreements for the recovery of recyclable wastes at bring site facilities and bore the cost of disposal, although a recycling credit was paid by the WDA, costs of recycling was generally greater than the payment. Those contracts, both formal and informal (a gentleman's agreement) needed to run their course to contract end before delivery to the PFI contract was possible. Some authorities still retain bring facilities for paper & card and mixed food & drinks can which are core material in the PFI. These sites often provide a recycling service to properties and areas that are unsuitable for inclusion in the core recycling offering. Glass collected at the kerbside remains outside the PFI until 2019 so is collected under WCA's own strategies.

With the current collection system developed within WCA's there is a reliance on residents to manage their wastes by:

1. Separating out recyclables.
2. Preparing materials for collection (rinsing out bottles and cans).
3. Storing materials for collection.
4. Placing out correct container(s) on collection days.

The Co-mingled scheme adopted by WCA's has three common characteristics of an effective and economical collection scheme in so far that there is:

1. Convenience for the resident in respect of limited space at household level.
2. Compatibility with current waste management practices from the time of inception.
3. Flexibility to respond to changes: i.e. inclusion of new material.

The above points make use of resource & efficiencies which are all common factors below:

1. Ability to economically utilise current vehicles to operate an Alternate Weekly Collection (AWC).
2. No requirement to purchase specialist vehicles.
3. Increased flexibility in collection regimes to respond to external factors by utilising standard vehicles.
4. Larger containers can be used to create capacity without the need for multiple containers at properties.
5. Maintain staffing levels commensurate with funding and capital expenditure available at that time.
6. Provide a safe means for manual handling of waste.
7. Collection rounds that can mirror each other. Same day refuse & recycling collections to aid continuity for residents.
8. Increased recycling rates.
9. Reduce residual waste Kg's/per household

The distance from the geographical boarders of districts within the greater NWP area made it impossible for everyone to deliver direct to the MRF so some of the WCA's feed into a network of transfer stations, where as some direct to the MRF, this strategy has been developed by the WDA and PFI contractors to aid resource efficiencies of the WCA's.

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Street cleaning:

WCA'S deliver street sweepings to the MRF or the feeder network of transfer stations where they are dewatered and the street sweepings are then transferred to the Veolia Ling Hall facility where 85-90% of the material is processed into recycling/reuse material with only the remaining fraction going to landfill.

Fly-tipping:

Fly tipped material at present mostly goes direct to landfill, with effect from June 2015 it is planned that nearly all this material will go through the transfer station network in order that as much as possible can be diverted for recycling or recovery.

Bulky collections:

Bulky collection material at present mostly goes direct to landfill, with effect from June 2015 it is planned that nearly all this material will go through the transfer station network in order that as much as possible can be diverted for recycling or recovery.

Delivery to Disposal:

Where appropriate Broxtowe BC, Gedling BC & Rushcliffe BC dispose of kerbside residual wastes within the Nottingham Energy from Waste Combined Heat & Power plant at Eastcroft, the remaining WCA's utilise landfill.

From mid-2015 it is anticipated that Newark and Sherwood District will be tipping at Veolia's new transfer station and the material collected will be sent for incineration at Veolia's facility in Sheffield. Plans are also underway to divert waste to this facility from Mansfield and Ashfield and talks are underway to take more waste at Nottingham's Eastcroft energy from waste Incinerator. This will result in much less waste being sent to landfill and therefore it will be exempt from rising landfill costs.

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Step 2 – How Materials Are Treated/Recycled

Step 2.1: Assessing the environmental base line performance of the NWP's current waste and recycling management approach in terms of CO_2 equivalent.

Guidance;

- It has been recommended by WRAP that authorities adopt the carbon factors in Zero Waste Scotland's Scottish Carbon Metric to convert recycling tonnages to CO_2 equivalent.
- It is the opinion of the author's, of this assessment that this exercise could provide a baseline environmental performance value for easy comparison later on in the lifetime of the document.

Refer to Appendix 5: this has been collated to show all WCA carbon data in a single source

It is safe to assume outcomes will not be massively different if the calculator was named English Carbon Metric, it would still give a calculation which measurements can be evaluated against. Please be aware the reference to Scotland in the text below has been taken directly from the Zero Waste Scotland's web site (see above hyper link):

What is a carbon metric?

Scotland is measuring the carbon impact of its waste in order to support and record work to reduce waste and its damage to the environment. They were the first country to measure the impact of its waste in this way. The reports and tools published measures the carbon impact of Scottish Waste and are known as the Carbon Metric. The carbon metric considers the environmental impact of materials and waste rather than focusing on the weight only.

The environmental impact of a material, such as plastics, is not reflected when measuring weight. The carbon metric includes an assessment of the emissions generated by producing and recycling materials as well as the emissions from the disposal process itself. This type of carbon accounting gives a more complete picture of the impacts of waste, allowing decision makers to prioritise their efforts more effectively.

Why use the carbon metric?

Producing materials which are then wasted has a significant environmental impact. By reducing waste and managing resources better, we can live more sustainably.
Using the carbon metric instead of weight we get a more complete picture of the carbon impacts of our waste. It is also easier for organisations to evaluate the benefits of preventing and recycling waste, and helps identify which materials are causing the most damage to the environment.

As a consumption based carbon accounting approach, the carbon metric includes the carbon impacts across the whole life cycle of a product, not only the emissions which occur in Scotland. This means we can see how Scotland's waste impacts on the environment globally rather than just in Scotland.

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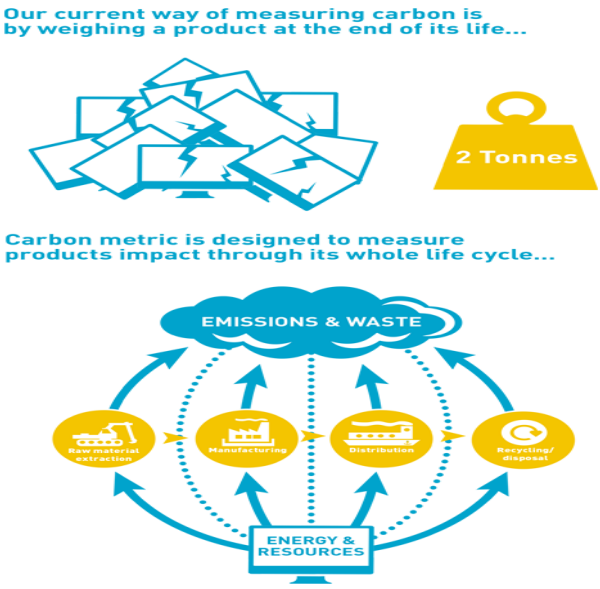

NWP Carbon Calculation

Refer to Appendix 5: for the full NWP carbon assessment, notwithstanding the introduction to ZWS carbon information above, the NWP assessment has included carbon outputs from fuel usage within the NWP area, as well as the calculation from the Scottish calculator for our waste arising.

The table below which shows how fuel usage has been calculated. The factor of 2.6008, which is a 'Green House Gas' conversion figure, has been gained from Rushcliffe Borough Councils Environmental Sustainability Officer. This figure is used as a factor for other assessments.

Table 1: Fuel Usage

Waste Collection Authority	Fuel (litres) Used Recycling Collection Rounds Only inc Glass	Green House Gas conversion @ 2.6008 (Kg's)	CO_2 equivalent tonnes
Ashfield DC	76,095.52	197,909.23	198
Bassetlaw DC	52,443.00	136,393.75	136
Broxtowe BC	80,841.15	210,251,66	210
Gedling BC	118,414.70	307,972.95	308
Mansfield DC	100.804.00	262,171.04	346
Newark & Sherwood DC	103,006.80	267,900.09	268
Rushcliffe BC	63,425.60	164,957.30	165
TOTAL	632,241.00	1644,332.39	1631

The carbon calculator headline figures show that:

- Our overall carbon impact of wastes: 314,908 tonnes CO_2eq.
- Tonnes used to calculate our impact: 190,807 (i.e. waste arising's v recycled & composted).
- Waste carbon footprint: 0.88 tonnes CO_2eq per household.
- Impact from recycling/composting: -35,238 tonnes CO_2eq.
- - 0.33 tonnes CO_2eq per tonne recycled/composted.

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The headline figure for recycling show that the NWP carbon impact is -35,238, this minus figure indicates we are saving 35,238 tonnes of CO_2 per year, based on the reported year of 2013-14 which is the period this assessment covers.

Bringing the fuel used into this assessment you will see that we have an output of +1631tCO_2eq minus this from the carbon calculator our overall impact is -33,607 tonnes of CO_2eq

If this calculation is rerun for tonnages in 2014-15 we will then be able to see whether our impact is increased or decreasing.

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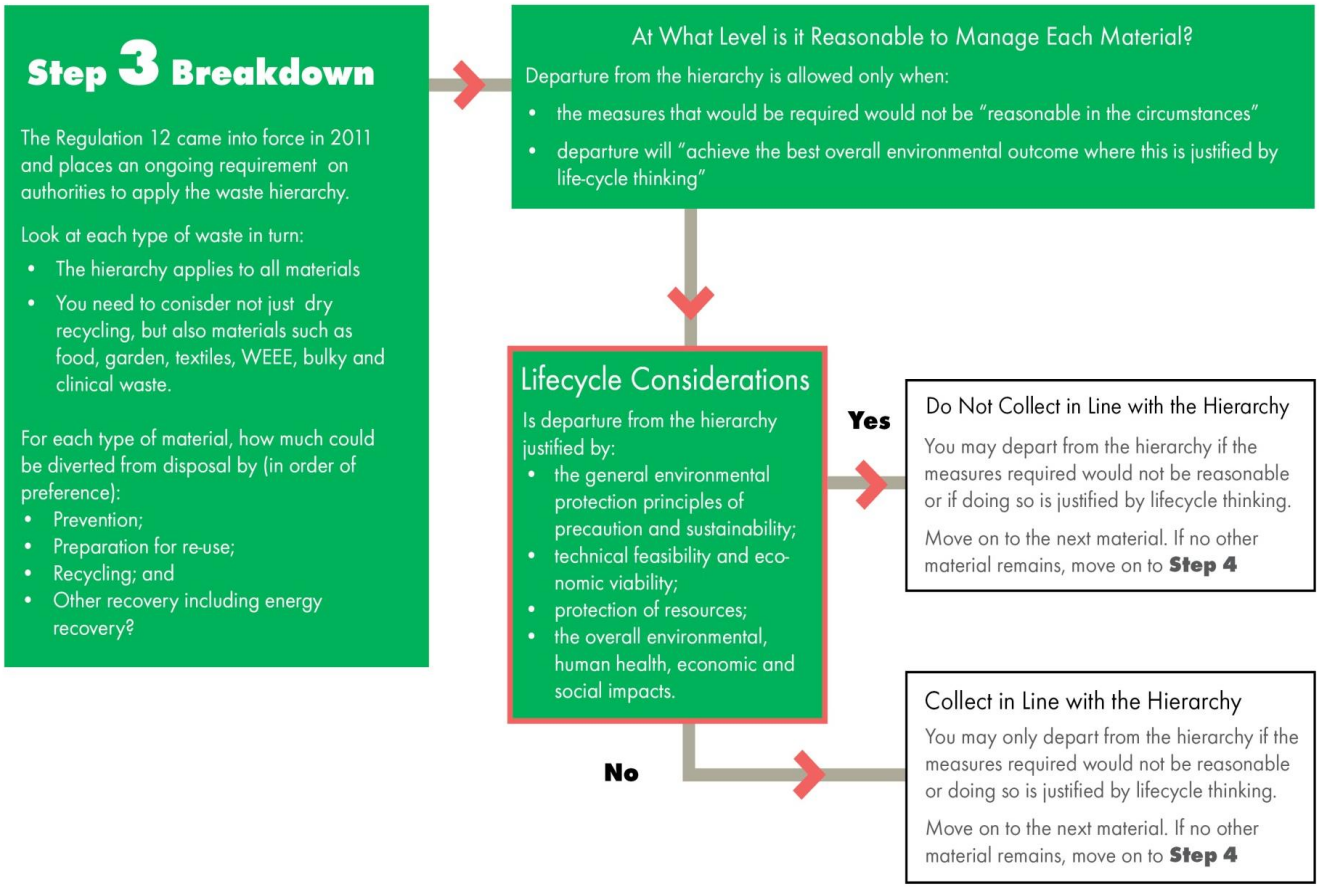
Step 3 – applying the waste hierarchy (regulation 12)

Regulation 12 (the requirements of which are already law) places no restriction on the types of waste to which the hierarchy should be applied. Therefore a Local Authority must apply the waste hierarchy to each type of material they collect, whether it is currently separated for recycling, or collected as part of the residual waste stream.

Although compliance with the hierarchy is not optional, departure from it is allowed when the measures that would be required would not be "reasonable in the circumstances", or where departure will "achieve the best overall environmental outcome where this is justified by life-cycle thinking on the overall impacts of the generation and management of the waste".

Step 3 provides a process to determine whether you must collect specific materials in line with the waste hierarchy, and can be broken down into the following flow diagram. At the end of Step 3 you should have established your proposed approach to managing each material and your rationale for your choices.



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Step 3.1 Waste Prevention and Reuse Activities

Working in collaboration with organisations such as WRAP and our waste management partners Veolia Environmental Services, the NWP has evaluated waste prevention activities currently undertaken and determined preventable tonnages of different types of waste via suitable waste prevention techniques. This identifies areas of significant potential to prevent waste entering collection and disposal services.

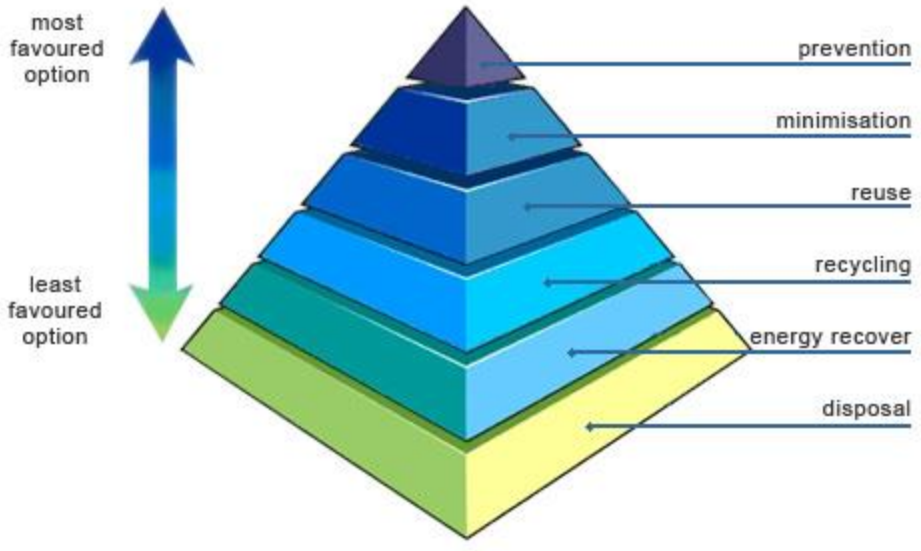
Individual WCA's have identified their own strategies through which glass bottles & jars, paper, card, mixed food & drinks cans, plastic bottles, textiles, food, furniture and Waste Electrical and Electronic Equipment (WEEE) can be removed from the residual waste stream.

Reuse schemes for furniture and WEEE may provide extensive social benefits to local communities where they are not currently offered, in addition to environmental benefits also. Individual campaigns are now in various stages of delivery to reduce waste arisings for these material streams and the NWP will continue to share success stories and best practice in order to facilitate the expansion of such schemes across the partnership.

In recognition of the benefits that can be derived by working in partnership to drive waste up the hierarchy, all NWP districts have Waste Minimisation Officers/Recycling Officers, working across both waste collection and disposal, in some cases their responsibilities do cover a much wider remit dependant with their duties at each authority. These Officers oversee and co-ordinate the waste prevention and reuse schemes derived from the aforementioned strategies and plans; such as the 'Love Food Hate Waste' and 'Are You BIN Smart?' campaigns as well as any that they operate within their own districts. This demonstrates the commitment from all parties to continue waste prevention activities and achieve ever more challenging targets.

All partners of the NWP have implemented a full audit of their infectious healthcare waste collection services, often referred to as clinical waste. This ensures that WCAs are collecting waste in the most appropriate manner, and that waste is stored, handled, transported and disposed of in accordance with all relevant legislation. The number of residents requiring a genuine infectious healthcare waste collection has reduced considerably across the NWP. It is now a requirement that a countywide referral form which requires the signature of the existing clinical healthcare professionals to identify wastes which need a specific disposal is completed before any new collections take place. This project has significantly reduced infectious healthcare waste arising's collected by WCA.

Waste Hierarchy



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The waste hierarchy is divided into six primary headings as follows:

Prevention - means measures taken before a substance, material or product has become waste, that reduce:

- the quantity of waste, including through the re-use of products or the extension of the life span of products;
- the adverse impacts of the generated waste on the environment and human health; or,
- the content of harmful substances in materials and products.

Re-use - which means any operation by which products or components that are used again.

Preparing for re-use - means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.

Recycling - means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. Ideally recycling will be 'closed loop' where materials are fully recovered without loss of quality and can be recovered again from their new form. Recycling includes the reprocessing of organic material but not energy recovery or the reprocessing into materials that are to be used as fuels or for backfilling operations.

Energy Recovery - means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

Disposal means any operation which is not recovery even where the operation has a secondary consequence, the reclamation of substances or energy.

Below are examples of other key waste prevention measures and reuse activities that are applied as a prevention measure across the NWP:

- Continuation of the national home composting campaign, providing residents with reduced price **Home Compost Bins** through the national framework to reduce garden and food waste presented for collection. This campaign was originally run separately by each authority but has more recently been combined into a single campaign to ensure consistency of the message.
- Support and engagement with the national **Love Food Hate Waste** program through events and campaigning work;
- **Are you BIN Smart?**; a targeted leaflet delivery campaign to remind residents what to place in the recycling bin.
- **Easter & Christmas press releases**; to remind residents to not only focus on seasonal activities but also to remember to recycle at this important time of year.
- **Schools Waste Action Club** (SWAC) which is a county led initiative to promote recycling and waste reduction in all Nottinghamshire schools
- Active promotion of a junk mail campaign including promotion of the **Mail Preference Service**
- **Paint Reuse** through the Community Repaint initiative at four of the Recycling Centres. This allows community groups and members of the public to collect donated unwanted free paint.
- Promotion of **Furniture and Appliance Reuse** Schemes.
- Provision of **webpages** which are kept up to date and provide links to access services and includes waste reduction tips and recycling advice for key waste streams.
- A **Real Nappy Scheme** which highlights the benefits of reusable nappies, including the financial savings that can be made during a child's early years.

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The NWP work closely with a range of organisations to promote best practice and ensure that forthcoming policy and legislative changes promote the best principles of waste management, including the waste hierarchy. We work closely with a range of national organisations such as the **Chartered Institution of Wastes Management** (CIWM), **Local Authority Recycling Advisory Committee** (LARAC) and the **Waste and Resources Action Programme** (WRAP).

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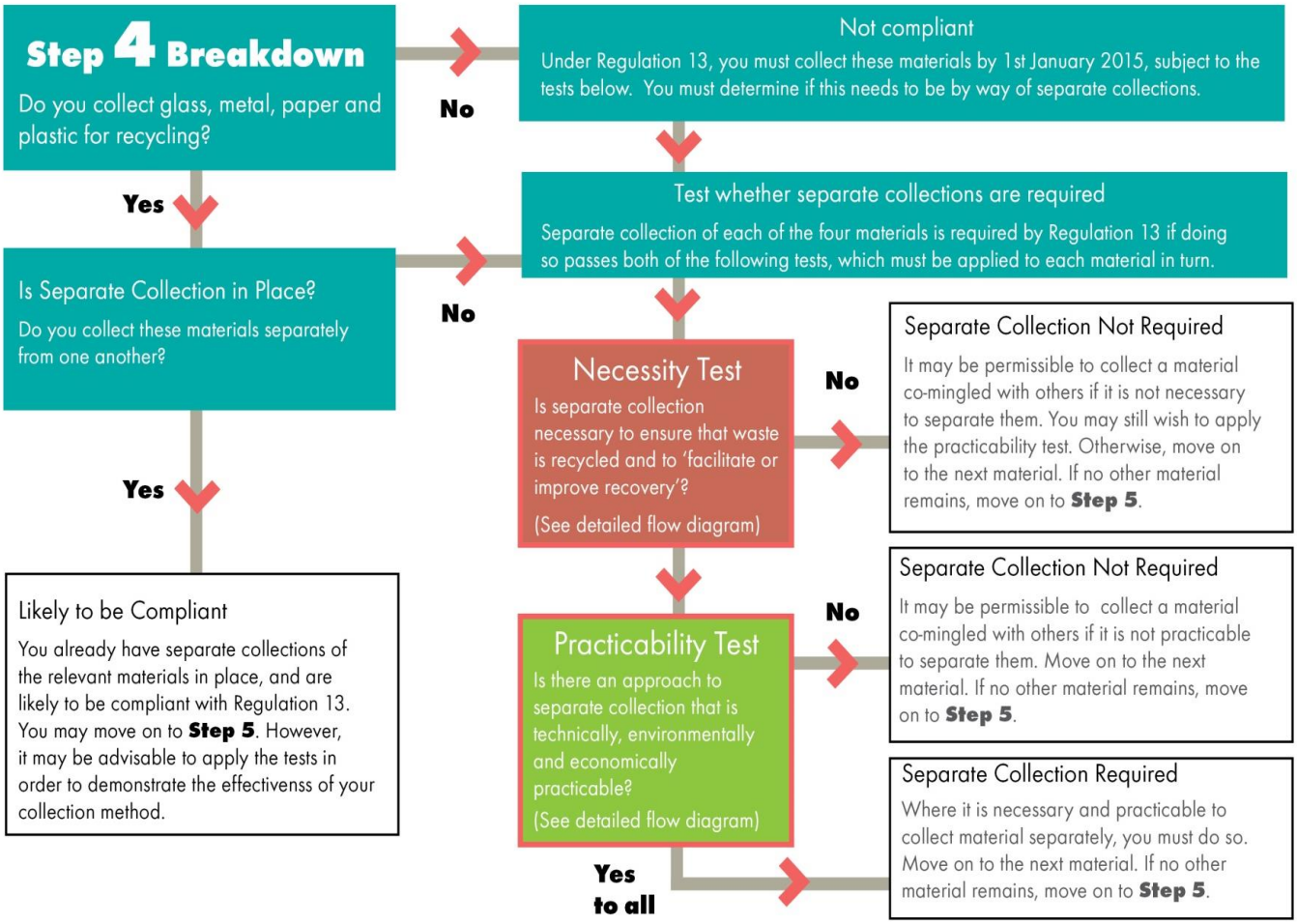
Step 4 – Are separate collections required? (regulation 13)

Regulation 13 places requirements to separately collect glass, metal, paper and plastic (the "four materials"), unless doing so fails to meet the Necessity and Practicability tests. The law now states separate collections as the default option.

Local Authorities should decide whether they need to collect the four materials separately. Co-mingling is only permissible if separate collection is either not necessary or not practicable. If Local Authorities wish to consider continuing co-mingled collections of any of the four materials, they will need to compare this approach with the default option of separate collection. This step applies to WCA's only.

Step 4 can be broken down into the following flow diagram.



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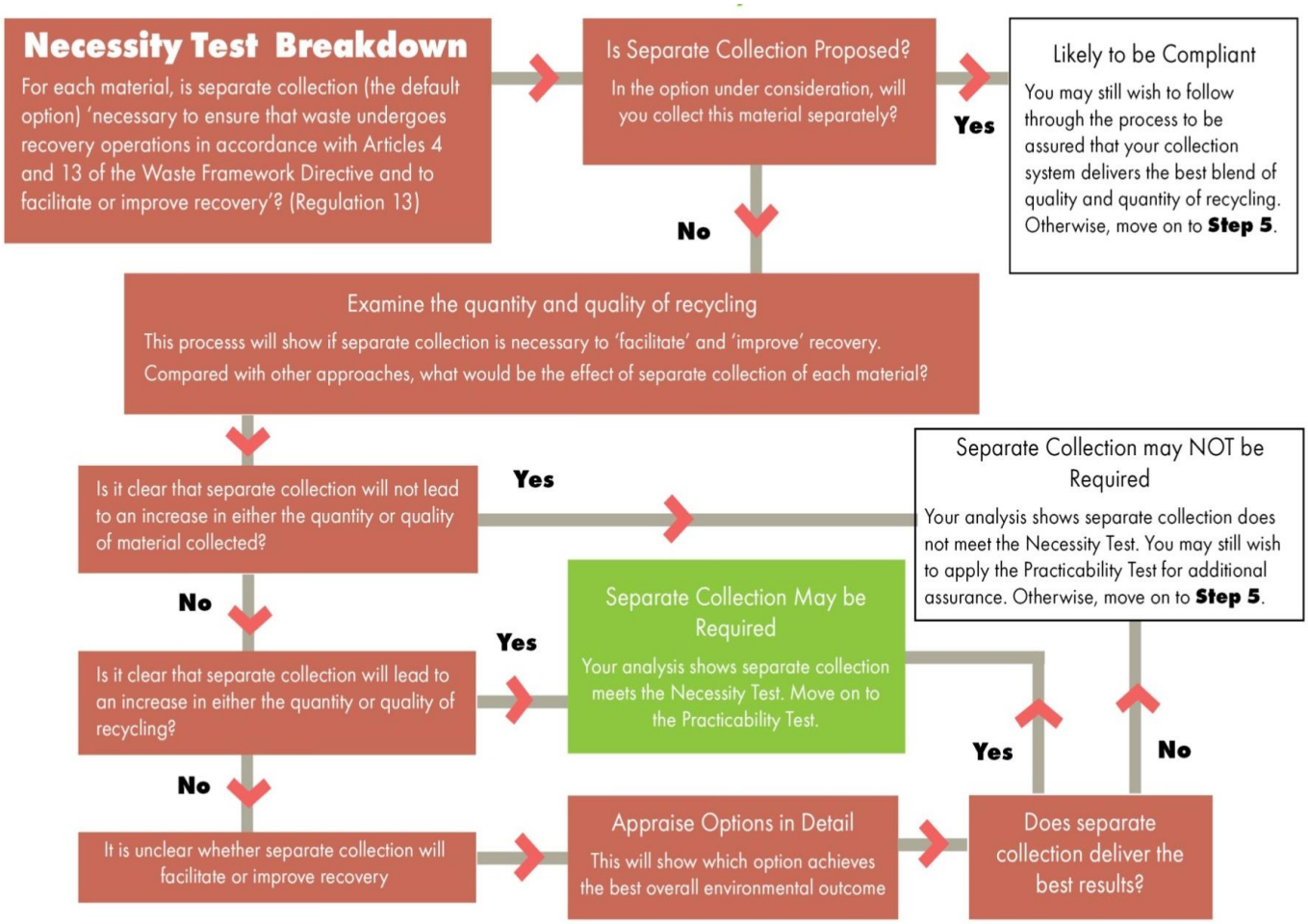
Step 4.1: The Necessity Test

All WCA's in the NWP collect glass, paper, plastic and metal for recycling in a separate collection methodology to residual waste collection services. However, these collections are not fully source separated. Therefore the Necessity Test must be applied.

This test will determine if it is necessary to collect the **4 materials** separately, in order to 'facilitate or improve recovery' (as written in the rWFD, although not defined). It is suggested that this is to achieve the aim of increasing recycling and accomplishing 'high quality' (again, not defined) recyclate.



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Background

As detailed earlier in this document all WCA in the NWP collect glass separately. By keeping glass out of the comingled stream the risks of contamination of paper and other material streams by glass shards (which are extremely hard to screen out) is greatly reduced.

Metals, plastics and paper/card are currently collected through a second comingled container. Adhering to the terms of the Waste Disposal Authority's Private Finance Initiative (PFI) contract these materials are delivered direct to the Materials Recovery Facility (MRF) maintained by Veolia. This facility has an input specification of no more than 5% contamination across the county. Although it is not actually a requirement of the contract to deliver co-mingled, delivery in this form does satisfy an economic need. The PFI contract will run until 2033.

Although the WCA's could opt to take their materials to other facilities this may be considered a breach of contract by Veolia. In response to this the Waste Disposal Authority would be pressured into using its Powers of Direction (Environmental Protection Act 1990 as amended by the Waste and Emissions Trading Act 2003 S31/34).

The co-mingled collection scheme was set in place in 2006 in response to the new contract and the full reasoning for this has been set out earlier in this document. Technically there is no reason why the PFI contract could not be revoked but this would be at considerable financial cost and would have to be at the behest of the Waste Disposal Authority not the Collection Authorities. To date there have been no issues with the sale of materials from the MRF and the output quality of materials is routinely monitored and it is anticipated that the facility will comply with the MRF code of Practice (In force from October 2014).

It is inconclusive and while there is some evidence to support the idea that source separation improves quality, the arguments provided below (and the evidence of the outputs from the MRF) do support the argument that what is delivered is good quality. Accordingly, the application of the test is inconclusive.

Whist it is plausible that the collection of materials source separated would lead to an increase in the quality of the material collected but it is thought within the industry that this increase in quality at the collection point would be countered by a fall in quantity (http://www.edie.net/news/5/Commingled-claims-deliver-killer-blow-for-kerbside-sort/23869).

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Quantity

The quantity of all materials collected by the NWP members has declined substantially since WDF records began. There are some interesting variations such as the increase of Mansfield's recyclable tonnage by 39% (probably due to the launch of their garden waste scheme) that would benefit from further investigation as part of the NWP. Interestingly although the total tonnages of recyclable material have fallen the overall % of material recycled has increased. If you factor in all materials handled by the WCA's then the percentage of material being diverted from landfill and incineration has risen from 44% to 50%.

Table 2: Reduction in quantity of material collected between 2006 & 2014

Authority	Collection Method	06-07	13-14	Variation	% Change
Ashfield District Council	Via BS LA	570.43	168.55	-401.88	-70%
Ashfield District Council	Via LA KS	11775.32	14197.243	2421.923	21%
	Total	**12345.75**	**14365.793**	**2020.043**	**16%**
Bassetlaw District Council	Via BS LA	1271.77	1019.34	-252.43	-20%
Bassetlaw District Council	Via LA KS	8604.46	6687.3	-1917.16	-22%
	Total	**9876.23**	**7706.64**	**-2169.59**	**-22%**
Broxtowe Borough Council	Via BS LA	1544.584	799.636	-744.948	-48%
Broxtowe Borough Council	Via LA KS	13419.649	13826.572	406.923	-3%
	Total	**14964.233**	**14626.208**	**-338.025**	**-2%**
Gedling Borough Council	Via BS LA	1044.033	461.55	-582.483	-56%
Gedling Borough Council	Via LA KS	14461.79	14944.435	482.645	3%
	Total	**15505.823**	**15405.985**	**-99.838**	**-1%**
Mansfield District Council	Via BS Com	148.89	94.966	-53.924	-36%
Mansfield District Council	Via BS LA	943.65	867.78	-75.87	-8%
Mansfield District Council	Via LA KS	10004.46	14421.27	4416.81	44%
	Total	**11097**	**15384.016**	**4287.016**	**39%**
Newark and Sherwood District Council	Via BS Com	24.645	18.43	-6.215	-25%
Newark and Sherwood District Council	Via BS LA	1777.875	1475.315	-302.56	-17%
Newark and Sherwood District Council	Via KS Com	251.953	355.8	103.847	41%
Newark and Sherwood District Council	Via LA KS	9579.64	8946.34	-633.3	-7%
	Total	**11634.113**	**10795.885**	**-838.228**	**-7%**
Rushcliffe Borough Council	Via BS LA	3032.897	2547.826	-485.071	-16%
Rushcliffe Borough Council	Via LA KS	21034.327	19295.782	-1738.545	-8%
	Total	**24067.224**	**21843.608**	**-2223.616**	**-9%**

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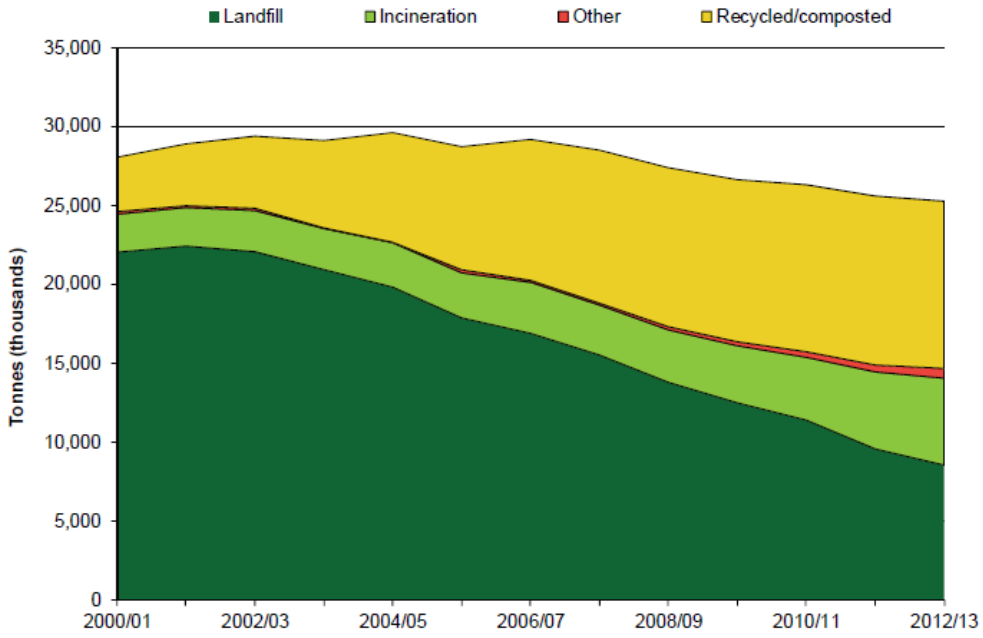
Table 3: Variation of Residual Waste Collected

Authority	06-07	13-14	Variation	% Change
Ashfield District Council	41441.79	31629.67	-9812.12	-24%
Bassetlaw District Council	38485.70	33250.39	-5235.31	-14%
Broxtowe Borough Council	25185.77	22887.55	-2298.22	-9%
Gedling Borough Council	25683.20	28960.43	3277.23	13%
Mansfield District Council	31552.09	28094.36	-3457.73	-11%
Newark and Sherwood District Council	37333.38	32847.36	-4486.02	-12%
Rushcliffe Borough Council	24916.00	21057.28	-3858.72	-15%
Total	**228473.94**	**200384.85**	**-28089.08**	**-12%**

There are a number of possible explanations for this change. Firstly the economic downturn in recent years has encouraged households to reconsider their spending habits and this will have had an impact on the amount of waste produced. In addition to this a significant amount of funding and research has been placed into packaging reduction such as WRAP's 'Less is more' campaign and GlassRite. There is nothing unusual about this change; Household Waste has been reducing nationally for a number of years. The graph below illustrates the variation in both the amount of waste collected by local authorities and the destination of that waste. It's clear from this illustration that the levels of waste sent to landfill and incineration have been steadily falling but so has the overall tonnage sent for disposal.



Note: Other includes, for example, material sent for mechanical biological treatment and mixed municipal waste sent for anaerobic digestion.
Source: Audit Commission analysis of ENV18, Local authority collected waste: annual results tables 2012/13, DEFRA

There is also potential for significant improvements in capture rates through the sharing of best practice within the NWP. The following table illustrates that there is a wide variation in the capture rates of key material streams from each authority:

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Table 4: Proportion (%) of material collected

Proportion of overall material captured through current schemes - Summary										
Kerbside Materials Observed	**Ashfield**	**Bassetlaw**	**Broxtowe**	**Gedling**	**Mansfield**	**Newark**	**Rushcliffe**	**Min**	**Max**	**Average**
Mixed paper & card	60%	53%	78%	57%	63%	62%	81%	53%	81%	65%
Dense Plastics	14%	21%	29%	27%	28%	27%	38%	14%	38%	26%
textiles	3%	6%	3%	4%	8%	4%	8%	3%	8%	5%
ferrous (60%)	48%	43%	44%	53%	36%	52%	39%	36%	53%	45%
non ferrous (40%)	66%	71%	50%	78%	87%	78%	76%	50%	87%	72%
weee	7%	0%	4%	11%	0%	0%	4%	0%	11%	4%
Glass	73%	49%	54%	77%	52%	61%	75%	49%	77%	63%
garden	81%	0%	100%	84%	89%	46%	97%	0%	100%	71%

What this indicates is that there is likely to be a significant amount of material which is not being captured at this time. By working together to identify the reasons behind these variations the NWP should be able to significantly increase the amount of material available.

Material Quality

It's very hard to be sure if material quality will increase if the switch was made to a kerbside sort system. Certainly there has been a lot of historic research done which does indicate that collecting waste comingled results in a higher contamination rate further down the line. However this research was conducted before the launch of the MRF code of practice (October 2014) so it is yet to be seen what impact this will have on the future of material quality. It is expected that the Veolia Facility used by WCA's in the NWP will be fully compliant with this new code.

The results of the material quality sampling that is conducted through the implementation of the code will be made available to re-processors. It is anticipated that this will result in higher prices being demanded for materials with lower contamination rates which will then encourage MRF operators to improve the quality of their material streams.

The Joint Waste Management Committee and Joint Officer board regularly receive updates on the level of contamination arising from each district and that interventions are discussed, such as targeted 'Are You BIN Smart' information pack which seek to minimise this so as to ensure and demonstrate commitments to quality.

Following the path of the flow chart above it can therefore be assumed that it is not clear what the impact of separate collections would be on material quality or quantity. As a result the Practicability Test needs to be applied to appraise the available collection options.

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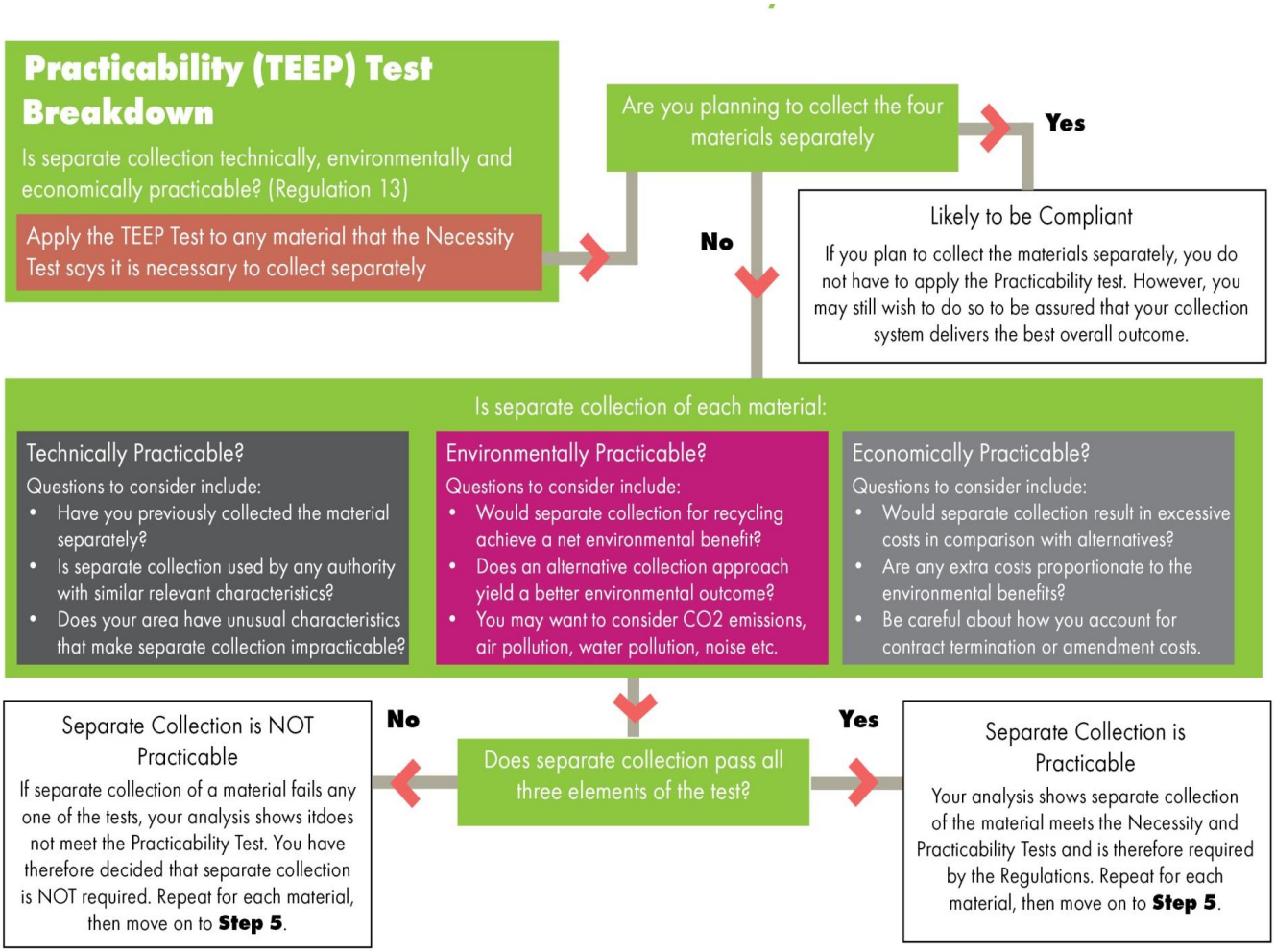
Step 4.2: The Practicability Test

This test, commonly referred to as TEEP, will determine if separate collection is technically, environmentally, and economically practicable. Throughout this test, we endeavoured to provide evidence where we have considered quality and quantity of materials collected in any service contracts / procurement, including any service alterations.



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Technical Practicality

A. Please detail below which (if any) parts of the NWP is **NOT** technically feasible to collect the 4 materials separately.

There is no reason technically why it is not practical to change collection systems to collect the four materials paper, plastics, metals and glass separately. Glass is already being collected by some districts kerbside and others operate a bring site service, so in essence the NWP would only need to concentrate on the three other materials streams.

The revised Waste Framework Directive and TEEP assessment is legally binding as of January 2015 but there is more to consider than just is it technically practical to collect wastes in whichever manner that are chosen.

The Health & Safety at Work Act 1974 and various other Health & Safety legislation does need careful consideration in tandem with the rWFD. Health & Safety legislation should not be discounted when determining and assessing the impact of waste legislation and it does need to be considered over any other legislation when it comes to the welfare and wellbeing of our workforce. Any advice given by the Health & Safety Executive is not legally binding but is advice which should be followed.

HSE advises that where possible to we are to reduce the need to manually handle wastes by lifting and carrying. The current wheeled bin system operated by all WCA's reduces the need to lift and carry wastes more than is absolutely necessary but boxes / sacks are an option.

Technical Practicality

B. Based on your answer to part A of this question, is separate collection technically practicable?

Yes ☒ No ☐

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Environmental Practicality

A. Please undertake an environmental assessment for the fully source separated collection service for the 4 materials

As highlighted above it is possible to change the current kerbside collection service provided within the NWP.

Environmentally any changes to a collection system from the current to a separate system would require extra vehicles, staffing, collection rounds, containers, fuel and increased trips to the delivery points, however some of these increases could possibly be offset by reductions in the numbers of staff, sorting machinery and energy costs at the MRF, however we believe the net effect of this change would still be detrimental.

As shown in appendix 4 the baseline saving of 32,795 tonnes of CO_2 equivalent, in providing the current comingled collection with separate kerbside glass collections in some areas based on 2013/14 data would decrease. An increase in likely vehicle numbers would also have a negative impact on the overall carbon saving by significantly increasing the carbon foot print within the NWP geographical area. Please note no assessment has been carried out of the likely increase in vehicles types and numbers for any change of service, consideration of those though is reflected in the 'Economical Practicability' assessment.

The Quantity vs Quality debate also requires consideration. Switching to kerbside sort may increase material quality but at the expense of material quantity. The MRF provided by the PFI contract is deemed a state of the art facility where the NWP can produce a quality of material currently accepted by industry and is expected to be fully compliant with the MRF code of practice. Veolia have indicated that they would not expect to achieve a better price for material collected separately.

While it is reassuring to hear that the EU Commission plans to bring back the Circular Economy proposals in a broader and more ambitious form in 2015, rather than abandon them altogether, the uncertainty around what this is, is not helpful. Until the EU can deliver robust proposals which create jobs, value and growth for the circular economy the authors of this assessment feel it is not environmentally practical to consider making changes to the WCA collection systems. Progress towards a more circular economy in Europe is vital for jobs and growth as well as for resource efficiency and environmental protection.

Considering the authors of is assessment have shown in the necessity test that evidence is inconclusive as to whether source segregated produces better quality of that against co-mingled collections we have chosen to indicate that it is environmentally practical to make a change to source segregated collections. This however would need further consideration should the economic situation assessment ever change.

Environmental Practicality

B. Based on your answer to part A of this question, is separate collection environmentally practicable?

Yes ☒ No ☐

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Economical Practicality

A. Please undertake an economical assessment for the fully source separated collection service for the 4 materials

In this section we have examined the economic implications of moving from the existing co-mingled system to one of separate Kerbside Collections. Glass is already captured separately by each authority and the top performing Bring Site system collects a greater percentage of material than all but one of the Kerbside Glass collections.

Any significant change to waste collections would be likely to result in the WDA's contract with Veolia requiring a significant review and it is possible an exit from the contract would have to be considered. Such an exit would have cost implications for the WDA so in the short to medium term it would be expected that WCA's would deliver their material to the MRF source segregated and leave it to Veolia to decide if it needs further processing before sale. Without exit from the PFI (which is a decision the WDA would have to justify) the WCA's will be unable to obtain any additional revenue from the materials collected regardless of quantity or quality.

Bearing in mind that the PFI contract limits the potential for any further revenue from the sale of materials; there are two clear options for collecting materials separately. Either by returning to Bring Site collections or by introducing a full kerbside sort programme (which may be complimented by some degree of bring site collection).

However, without input and financial support from either the WDA or waste re-processors, WCA's may not feel sufficiently incentivised to make any investment to increase recycling. Any financial incentives that are provided will need to be sufficiently attractive and sustainable over the longer term to influence the WCA's to introduce new recycling schemes.

Change to Bring Site Collections.
One low cost option would be to cease kerbside collections of recyclable waste altogether and to expect all residents to take their recyclables to a number of super recycling points around the county. This is likely to result in a considerable fall in the quantity of recyclable material and may be difficult to implement as finding a significant number of usable sites could be difficult. Ultimately this may result in all WCA's collecting this material failing the waste hierarchy. On the plus side it would require a much reduced collection fleet so there would be a considerable saving on collection costs. New equipment required would be limited to a significant number of suitable collection banks such as adapted 1100L containers. Depending on the collection methodology utilised new types of collection vehicles may or may not be required.

Change to Kerbside Sort
Changing to a system of kerbside sorting would certainly fulfil all of the requirements of the rWFD but without any return on revenue from the materials collected, it is going to cost the WCA's significantly more to deliver. New vehicles and containers would be required, the exact number would vary considerably dependant on the circumstances of the individual authority and any joint collection procedures put in place. Not only does this entail a purchase cost but all new containers would have to be delivered and old ones collected and scrapped. Any new vehicles would also require additional annual running costs. New infrastructure may also be required for the storage and bulking up of new materials, increase in the 'O' Licence requirements and CoTC qualification requirements of all WCA's. Potentially such a change could double the running cost of the service (especially if existing vehicles are retained) but the reality is that even a relatively moderate increase in expenditure is impossible at this venture. Local government resources are being squeezed year on year and this pressure is likely to continue for the foreseeable future. A budget increase of the size required to fund these changes would undoubtedly impact on other services that the authorities provide.

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Table 5: Economic Assessment Overview

	Current System	Separate Collections	Large Bring Sites
New infrastructure required?	No	Yes	Yes
Additional Vehicles Required?	No	Yes	No
New containers required?	No	Yes	No
Annual running costs?	Same	Increase	Decrease
Revenue Obtained from Materials?	Glass Only	Glass Only	Glass & Textiles
Economically Practicable?	Yes	No	Yes

Please see appendix 6 which shows an assessment of likely costs to collections infrastructure, this assessment has been based on what our current collection methods, less glass, are, in comparison to a full kerbside sort using a kerbsider multi compartmental collection vehicle, box method. The table does not replace the appendix 3 'Headline Cost' rather it is intended to show likely costs to support our Economical assessment.

Item 15 in the Supporting Document Library on Page 35 does give indicative costs and performance for kerbside recycling with tables providing information for Co-mingled v Kerbside sort. Although this report is from 2008 the indicative costs are relevant until a more critical assessment can be made of Nottinghamshire collections. The study has focused on the three main kerbside collection systems operating: kerbside sort; single stream co-mingled; and two stream partially co-mingled. It examines a number of the main service variations in each category within two different local contexts; urban and rural. Although it is not the intention of the report to provide a definitive answer to the question "which is the best system for me?" by its nature it has identified some systematic differences in the options examined. These can be summarised as:

- With some market conditions kerbside sort schemes show lower costs – net of income from material sales - than single stream co-mingled schemes. ***NWP WCA's do not received any income from material sales***
- The net costs of co-mingled schemes are heavily affected by MRF gate fees and the costs of kerbside sort by income from the sale of materials. ***NWP WCA's are not effected by MRF gate fees***
- There is little variation in material yields between the three main scheme types but, within schemes, variants which collect glass and have an alternate weekly collection of refuse exhibit the greatest diversion rates.
- Recycling collections are maximised when customers are provided with adequate capacity through more or larger containers and/or weekly collections of recyclable materials.
- There appears to be no systematic advantage for one recycling system based on the 'urban or 'rural' nature of the areas served.

Economical Practicality

B. Based on your answer to part A of this question, is separate collection economically practicable?

Yes ☐ No ☒

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Practicality Conclusion

Table 6: Practicability assessment overview

	Current System	Kerbside Sort	Bring Sites
Necessity Test			
Satisfies Waste Hierarchy?	Yes	Yes	No
Improves/Maintains Material Quantity?	Yes	Unknown	No
Improves/Maintains Material Quality?	Unknown	Unknown	Yes
Practicability Test			
Technically Practicable	Yes	Yes	Yes
Environmentally Practicable	Yes	Yes	Yes
Economically Practicable	Yes	No	Yes

TEEP Assessment Outcomes

As the situation stands members of the NWP are NOT obligated to collect paper metals or plastics separately because we have deemed that the economics of change are not practicable.

However should circumstances change, especially with regard to the PFI contract, then this situation should be fully reviewed. This contract expires in 2033 so all partnership members should be aware of this date when planning their future service offering.

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Local Authority Compliance Template for Waste Collection Authorities

TEEP – Summary

Please provide a short overview of the justifications to reaching the above conclusion. (This summary will be used in Step 5)

The aim of this summary is to provide a brief overview of the outcomes of the TEEP assessment for the Nottinghamshire Waste Partnership. Rather than concentrating on the whole assessment which looks at our common collections systems and disposal through the agreement between Nottinghamshire County Council and its PFI partner (Veolia Environmental Services), it will only look at the final steps in respect of how we have applied the Waste Hierarchy regulation 12 in Step 3 and Step 4 are separate collections required under regulation 13.

It should be noted that this is an assessment of the TEEP requirements of the Revised Waste Framework Directive rather than a report and should be acknowledged as such. The outcomes of this assessment should be treated as an active document and should be reviewed on an annual basis to see, when final data is placed into WasteDataFlow and has been accepted to Level 30, whether we need to review our systems.

This will go some way in ensuring we are remaining compliant with the directive and should we not meet each of the practicability tests, a change from a Co-mingled collections would be the default option.

Step 3: Applying the waste hierarchy (regulation 12)

Regulation 12 (the requirements of which are already law) places no restriction on the types of waste to which the hierarchy should be applied. Therefore we, the WCA's, must apply the waste hierarchy to each type of material that we collect, whether it is currently separated for recycling, or collected as part of the residual waste stream.

Although compliance with the hierarchy is not optional, departure from it is allowed when the measures that would be required would not be reasonable in the circumstances, or where departure will achieve the best overall environmental outcome, where this is justified by life-cycle thinking on the overall impacts of the generation and management of the waste. Step 3 provides a process to determine whether we must collect specific materials in line with the waste hierarchy.

At the end of Step 3 the authors of this assessment have established, collectively we are managing wastes that we have control over and that the WDA provide a disposal option, for and those wastes we do not have a specific option for disposal. We manage those though a number of campaigns or waste reduction or minimisation measures in line with the Waste Hierarchy.

In bold are the elements of the Waste Hierarchy which apply to the outcomes for Step 3:

- **Reuse/Recycle:** Glass - no glass is collected with any other waste.
- **Recycle/Minimisation:** Dry Recycling – Paper Metals and Plastics communication campaigns such as 'Are You Bin Smart?' inform our residents to only place specific items into the recycling bin rather than the industry identification number. Regular input sampling points us to problems areas which we then focus our waste officers time towards.
- **Reduce:** Healthcare wastes - needs the signature of a healthcare professional to tell us whether that waste needs a specific disposal route because it is infectious or whether it is offensive and can be placed into the residual waste bin.
- **Prevention & Minimisation:** Love Food Hate Waste (LFHW) - for a number of years now NWP have run very successful LFHW road shows making use of a suite of communication materials to get that message out to not only those well to de residents but also the hard to reach parts of our county.

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Step 4: Are separate collections required? (regulation 13)

Regulation 13 places requirements to separately collect paper, metal, plastic and glass (the "four materials"), unless doing so fails to meet the Necessity and Practicability tests. The law now states separate collections as the default option. WCA's within the NWP should decide whether we need to collect the four materials separately. Co-mingling is only permissible if separate collection is either not necessary or not practicable. If we wish to consider continuing co-mingled collections of any of the four materials, we need to compare this approach with the default option of separate collection. This step applies to WCA's not WDA's as TEEP is only about collections not disposal.

The Necessity Test

All WCA's in the NWP collect glass, paper, plastic and metal for recycling, in a separate collection methodology to our residual waste collection services. However, these collections are not fully source separated; therefore the Necessity Test has been applied. The authors of this assessment have determined it may be necessary to collect the **4 materials** separately as we believe the Necessity test is inconclusive, there are arguments to suggest the environmental impacts may also be lesser or greater in order to 'facilitate or improve recovery' (as written in the rWFD, although not defined).

Following the path of the necessity test flow chart it can therefore be assumed that it is not clear what the impact of separate collections would be on material quality or quantity. As a result the Practicability Test needs to be applied to appraise the available collection options.

The Practicability Test

This test, commonly referred to as TEEP, will determine if separate collection is technically, environmentally, and economically practicable. Throughout this test, the authors of this assessment have endeavoured to provide evidence where we have considered quality and quantity of materials against the practicability of change.

1. Is it **Technically Practical** to collect separately?

Yes; it is **technically** feasible to collect the four materials separately, WCA's do already collect glass in this manner through a network of bring site facilities and or kerbside collection schemes.

There are other considerations to be taken into account though when determining any likely changes.

- Health & Safety legislation
- HSE guidance based around the welfare and well-being of the manual work force, when collecting wastes in which ever manner. These do not prohibit how or what wastes are collect but they are there for careful consideration when designing any future collection schemes.
- Manual handling and lifting, taking away the need to manual handle in favour of a mechanical lift.

2. Is it **Environmentally Practical** to collect separately?

Yes; it is **environmentally** feasible to collect the four materials separately as that would create a better quality of material but this would no doubt increase our overall carbon footprint through more vehicles required to collect the same quantity of material. Carbon has to be carefully considered but all current United Kingdom targets for industry and those that have been in the past applied to local authorities are weight based, until the change to a carbon metric; the life cycle of materials cannot be fully measured in carbon terms.

While it is reassuring to hear that the EU Commission plans to bring back the Circular Economy proposals in a broader and more ambitious form in 2015, rather than abandon them altogether, the uncertainty around this is not helpful. Until the EU deliver robust proposals which create jobs, value of material and growth for the circular economy the authors of this assessment feel it is not

environmentally practical to consider making changes to the WCA collection systems but do not have enough evidence to argue against making that change, so in this instance we agree that is practical to change.

3. Is it **Economically Practical** to collect separately?

No; In the current financial climate it is not **economically** practical to make wholesale changes to collection systems to satisfy separate collection of the four materials paper, metals plastics or glass.

The costs as shown in appendix 6, of further capital expenditure being made towards segregated collection infrastructure makes any changes beyond most if not all WCA's ability. There simply are not enough financial resources available to invest in additional collection infrastructure, that coupled with WCA's being unable to realise any income from 3 of the 4 materials for which this assessment applies is the main reason not to make change.

Rather it makes sense to continue as we have been doing with a much greater emphasis for the PFI contractors, WDA & WCA's to continue with our education, waste minimisation and awareness campaigns. This will go some way in ensuring we the tools available to produce a material quality which will meet Veolia's needs and any stringent challenges we may face as an outcome from this assessment.

This does not mean we should stand still and say we are TEEP compliant. Moving forward we can work closer together to share best practice and routinely compare performance to identify new methods of working and innovative schemes. Our assessment needs to remain robust and we need to find creative ways to engage with our residents to ensure they are fully aware of the need to only place in to the recycling bin items that can be processed at the MRF.

Are separate collections required?

If any one of the practicality tests for the separate collection of paper, metals plastics or glass fails no changes are required. In conclusion the authors of this assessment therefore indicate that separate collections are not required at this moment in time on the basis of the economics alone.

Advice indicates that the Environment Agency (EA) will call forward each TEEP assessment to review and potentially comment on this assessment, the EA have already forewarned this will happen.

In the interim it is recommended that a programme of regular information sharing is established using data compiled for WasteDataFlow by each authority. By evaluating this data at regular intervals the partnership members should be able to identify areas of best practice and potential for improvement through sharing service delivery to achieve a quality material for reprocessing.

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Step 5 – Obtain sign off

Please detail below the sign off process for your authority, fill out the below table to summarise who made what decision.

This assessment has been written as a technical document to support the NWP TEEP outcomes; that we do not meet the Necessity & Practicability tests to change to segregated collections of paper, metals, plastics and glass. This assessment is evidence to show compliance and to use as a defence in the event of a challenge to all NWP Waste Collection Council's approach to waste collection and recycling.

Delegated powers of sign off to 'Service Leads' has been used to finalise the Revised Waste Framework Directive (rWFD) Local Authority Compliance for Nottinghamshire Waste Collection Authorities and has been formally adopted as such.

Refer to embedded PDF below to view Step 5 sign off signatures

Step 5 Sign Off Sheet Page 35.pdf

Local Authority Name	Date	By whom	Signature
Ashfield DC			
Bassetlaw DC			
Broxtowe BC			
Gedling BC			
Mansfield DC			
Newark & Sherwood DC			
Rushcliffe BC			
Joint Waste Management Committee Chair			

Each WCA's has been advised that Cabinet approval may be needed before sign off is obtained.

Step 6 – Retain evidence

Retain all evidence of this assessment, including the background documents used to supply data and all attachments.

Step 7 – Re-evaluation process

Should there be any substantial changes to the following factors, it may be necessary to repeat this full assessment process;

- Availability of accessible facilities and improved technology etc,
- Cost of vehicles / staff,
- Recyclate values / cost of energy recovery or disposal,
- End of any contracts (collection service, vehicle hire, treatment / reprocessing etc).

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If minor changes to the above factors occur, it is necessary to conduct a small review of this process, offering a one page summary that despite the minor changes, the full assessment is still applicable, providing reasoning for reaching this conclusion.

The date for the next full assessment to be carried out and give your reasoning for choosing this date.

Guidance; Suggested reasons for selecting a date include end of contracts, purchasing of new vehicles, alterations to service delivery (waste streams, working methodology etc).

Reassessment will be carried out annually from the sign off date to ensure material quality is reviewed and any communications produced in partnership with the WDA and its PFI contractors Veolia meet the needs of all WCA's.

Supporting Document Library

The table below, list all submitted items evidence to justify our assessment.

Attachment number	Document name	Document Type
1	Rushcliffe Residual Waste Analysis 2010	Word
2	Rushcliffe Residual Waste Analysis Additional information	Word
3	Broxtowe Residual Waste Analysis	Word
4	DEFRA National Waste Compositional Data EV801	Web Link
5	Carbon Impact	PDF
6	EA Briefing Note October 2014	PDF
7	EA Briefing Note December 2014	PDF
8	EA Letter Separate Collections Letter	PDF
9	Gershon Report 2004	PDF
10	Health & Safety Making Best Use of Lifting Aids	Web Link
11	Safe Waste & Recycling Collections	Web Link
12	MRF Input Specification	PDF
13	Waste Regulations Route Map	PDF
14	DEFRA Lord R de Morley Letter 2013	PDF
15	Kerbside Recycling Indicative Costs & Performance	Web Link

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Supporting Documents

1	2	3	4	5
10066_Rushcliffe Residual Waste Audit	10066_Rushcliffe Additional Material.dc	BROXTOWE REPORT FINAL.doc	Web link see below	Carbon impacts of recycling and transpo
6	7	8	9	10
EA Separate Collection Briefing Not	EA Separate Collection Briefing Not	EA Separate Collection Letter 22-[illegible]	Gerson Report 2004 efficiency_review120	Web link see below
11	12	13	14	15
Web link see below	MRF Input Accepted materials Schedule 30	Waste Regulations Route Map April 2014	DEFRA Lord R de Morley Letter Oct 201	Web link see below

Web Links

Item 4: http://randd.defra.gov.uk/Default.aspx?Module=More&Location=None&ProjectID=18237

Item 10: http://www.hse.gov.uk/pubns/indg398.pdf

Item 11: http://www.hse.gov.uk/pubns/waste23.pdf

Item 15: http://www.wrap.org.uk/sites/files/wrap/Kerbside%20collection%20report%20160608.pdf

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Appendix 1

Step 1: Compositional analysis relied upon in our work, and states how it was derived (e.g. from national figures, or a local survey) alongside any other relevant information.

Ashfield DC

Total Residual Household Wastes – 29,424.66 tonnes

Property Count – 53730

Type of Analysis Used - National Figures

Kerbside Material Observed	% Proportion of the bin	Tonnage (%) of residual Wastes	Total captured for recycling/composting per WDF tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	14.46	4254.81	6323.36	10578.17	59.78
Films	6.87	2021.47	0.00	2021.47	0.00
Dense Plastics	9.18	2701.18	430.70	3131.88	13.75
Textiles	4.08	1200.53	33.87	1234.40	2.74
Ferrous Metals	1.13	332.50	301.46	633.96	47.55
Non Ferrous	0.23	67.68	129.24	196.92	65.63
WEEE	1.18	347.21	27.10	374.31	7.24
Glass	3.12	918.05	2528.00	3446.05	73.36
Garden	3.27	962.19	4230.60	5192.79	81.47
Miscellaneous Combustibles	14.31	4210.67		4210.67	0.00
Miscellaneous Non-Combustibles	8.18	2406.94	0.00	2406.94	0.00
Putrescible	30.92	9098.10	0.00	9.98.10	0.00
Fines	2.26	665.00	0.00	665.00	0.00
Hazardous	0.81	238.34	0.00	238.34	0.00
Total	100.00	29424.66	14004.33	43428.99	

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Local Authority Compliance Template for Waste Collection Authorities

Bassetlaw DC

Total Residual Household Wastes – 30,799.73 tonnes

Property Count – 50821

Type of Analysis Used - National Figures

Kerbside Material Observed	% Proportion of the bin	Tonnage (%) of residual Wastes	Total captured for recycling/composting per WDF tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	14.46	4453.64	5056.44	9510.08	53.17
Films	6.87	2115.94	0.00	2115.94	0.00
Dense Plastics	9.18	2827.42	753.53	3580.95	21.04
Textiles	4.08	1256.63	86.19	1256.63	6.42
Ferrous Metals	1.13	348.04	263.72	611.76	43.11
Non Ferrous	0.23	70.84	175.83	246.67	71.28
WEEE	1.18	363.44	0.00	363.44	0.00
Glass	3.12	960.95	909.20	1870.15	48.62
Garden	3.27	1007.15	0.00	1007.15	0.00
Miscellaneous Combustibles	14.31	4407.44	0.00	4407.44	0.00
Miscellaneous Non-Combustibles	8.18	2519.42	0.00	2519.42	0.00
Putrescible	30.92	9523.28	0.00	9523.28	0.00
Fines	2.26	969.07	0.00	969.07	0.00
Hazardous	0.81	249.48	33.58	238.06	11.86
Total	100.00	30799.73	6283.10	37.082.83	

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Local Authority Compliance Template for Waste Collection Authorities

Broxtowe BC

Total Residual Household Wastes – 22,428.36 tonnes

Property Count – 48250

Type of Analysis Used – M.E.L

Kerbside Material Observed	Residual waste analysis kg/hh/pw	Total over AWC	Multiply by number of properties/tonnes	Total captured kerbside tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	0.63	32.76	1580.67	5911.40	7492.07	78.90
Films	0.33	17.16	827.97	0.00	827.97	0.00
Dense Plastics	0.49	25.48	1229.41	510.86	1740.27	29.36
Textiles	0.55	28.60	1379.95	46.27	1426.22	3.24
Ferrous Metals	0.18	9.36	451.62	357.60	809.22	44.19
Non Ferrous	0.06	3.12	150.54	153.25	303.79	50.45
WEEE	0.14	7.28	351.26	15.13	366.39	1.13
Glass	0.67	34.84	1681.03	2004.31	3685.34	54.39
Garden	1.39	72.28	3487.51	4590.50	8078.01	54.39
Miscellaneous Combustibles	1.77	92.04	4440.93	0.00	4440.93	0.00
Miscellaneous Non-Combustibles	0.86	44.72	2157.74	0.00	2157.74	0.00
Putrescible	2.69	210.60	6749.21	0.00	6749.21	0.00
Fines	0.15	7.80	376.35	0.00	376.35	0.00
Hazardous	0.05	2.60	125.45	0.00	125.45	0.00
Total	9.96	517.92	24,989.64	13589.32	38,578.96	

Note: Waste analyses do not necessarily match actuals collected as the analysis is only representational of the waste as a whole over the ACCORN groups.

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Local Authority Compliance Template for Waste Collection Authorities

Gedling DC

Total Residual Household Wastes – 26590.20 tonnes

Property Count – 51570

Type of Analysis Used - National Figures

Kerbside Material Observed	% Proportion of the bin	Tonnage (%) of residual Wastes	Total captured for recycling/composting per WDF tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	14.46	3844.94	5131.00	8975.94	57.16
Films	6.87	1826.75	0.00	1826.75	0.00
Dense Plastics	9.18	2440.98	918.00	3358.98	27.33
Textiles	4.08	1084.88	47.71	1132.59	4.21
Ferrous Metals	1.13	300.47	333.95	634.42	52.64
Non Ferrous	0.23	61.16	222.63	283.79	78.45
WEEE	1.18	313.76	40.43	354.19	11.41
Glass	3.12	829.61	2850.51	3680.12	77.46
Garden	3.27	869.50	4.448.84	5318.34	83.65
Miscellaneous Combustibles	14.31	3805.06	0.00	3805.06	0.00
Miscellaneous Non-Combustibles	8.18	2175.08	0.00	2175.08	0.00
Putrescible	30.92	8221.69	0.00	8221.69	0.00
Fines	2.26	600.94	0.00	600.94	0.00
Hazardous	0.81	215.38	0.00	215.38	0.00
Total	100.00	26590.20	13993.07	40583.27	

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Local Authority Compliance Template for Waste Collection Authorities

Mansfield DC

Total Residual Household Wastes – 24,412.00 tonnes

Property Count – 47919

Type of Analysis Used - National Figures

Kerbside Material Observed	% Proportion of the bin	Tonnage (%) of residual Wastes	Total captured for recycling/composting per WDF tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	14.46	3529.98	5894.26	9424.24	62.54
Films	6.87	1677.10	0.00	1677.10	0.00
Dense Plastics	9.18	2241.02	870.24	3111.26	27.97
Textiles	4.08	996.01	87.99	1084.00	8.12
Ferrous Metals	1.13	275.86	154.82	430.68	35.95
Non Ferrous	0.23	56.15	361.07	417.22	86.54
WEEE	1.18	288.06	0.00	288.06	0.00
Glass	3.12	761.65	838.43	1600.08	52.40
Garden	3.27	798.27	6741.17	7539.44	89.41
Miscellaneous Combustibles	14.31	3493.36	0.00	3493.36	0.00
Miscellaneous Non-Combustibles	8.18	1996.90	0.00	1996.90	0.00
Putrescible	30.92	7548.19	0.00	7548.19	0.00
Fines	2.26	551.71	0.00	551.71	0.00
Hazardous	0.81	197.74	0.00	197.74	0.00
Total	100.00	24412.00	14947.98	39359.68	

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Newark & Sherwood DC

Total Residual Household Wastes – 28,254.21 tonnes

Property Count – 52197

Type of Analysis Used - National Figures

Kerbside Material Observed	% Proportion of the bin	Tonnage (%) of residual Wastes	Total captured for recycling/composting per WDF tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	14.46	4085.56	6653.46	10739.02	61.96
Films	6.87	1941.06	0.00	1941.06	0.00
Dense Plastics	9.18	2593.74	981.27	3575.01	27.45
Textiles	4.08	1152.77	48.53	1201.30	4.04
Ferrous Metals	1.13	319.27	352.61	671.88	52.48
Non Ferrous	0.23	64.98	235.08	300.06	78.34
WEEE	1.18	333.40	0.00	333.40	0.00
Glass	3.12	881.53	1388.36	2269.89	61.16
Garden	3.27	923.91	775.20	1699.11	45.62
Miscellaneous Combustibles	14.31	4043.18	0.00	4043.18	0.00
Miscellaneous Non-Combustibles	8.18	2311.19	0.00	2311.19	0.00
Putrescible	30.92	8736.20	0.00	8736.20	0.00
Fines	2.26	638.55	0.00	638.55	0.00
Hazardous	0.81	228.86	0.00	228.86	0.00
Total	100.00	28254.21	10434.51	38668.72	

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Rushcliffe BC

Total Residual Household Wastes – 20,444.03 tonnes

Property Count – 47810

Type of Analysis Used – MEL

Kerbside Material Observed	Residual waste analysis kg/hh/pw	Total over AWC	Multiply by number of properties/tonnes	Total captured kerbside tonnes	Total available for capture kerbside tonnes	Likely % of overall captured through current schemes
Mixed paper & Card	0.58	30.16	1441.95	5995.68	7437.63	80.61
Films	0.3	15.60	745.84	0.00	745.84	0.00
Dense Plastics	0.58	30.16	1441.95	888.24	2330.19	38.12
Textiles	0.24	12.48	596.67	49.85	646.52	7.71
Ferrous Metals	0.13	6.76	323.20	207.30	530.50	39.08
Non Ferrous	0.04	2.08	99.44	310.88	410.32	75.76
WEEE	0.11	5.72	273.47	11.06	284.53	3.89
Glass	0.32	16.64	795.56	2342.94	3138.50	74.65
Garden	0.08	4.16	198.89	5700.00	5898.89	96.63
Miscellaneous Combustibles	0.99	51.48	2461.26	0.00	2461.26	0.00
Miscellaneous Non-Combustibles	0.24	12.48	596.67	0.00	596.67	0.00
Putrescible	2.53	131.56	6289.88	0.00	6289.88	0.00
Fines	0.16	8.32	397.78	0.00	397.78	0.00
Hazardous	0.08	4.16	198.89	7.64	206.53	3.70
Total	6.38	331.76	15861.45	15513.59	31375.04	

Note: Waste analyses do not necessarily match actuals collected as the analysis is only representational of the waste as a whole over the ACCORN groups.

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Local Authority Compliance Template for Waste Collection Authorities

Appendix 2

Step1.2 Provides a detailed description of our collection methods for each waste stream.

Ashfield DC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	240/360/770/1100/1280 wheelie bins	53730
Card	Yes	DSO	240/360/770/1100/1280 wheelie bins	53730
Mixed Plastic bottles	Yes	DSO	240/360/770/1100/1280 wheelie bins	53730
Metals	Yes	DSO	240/360/770/1100/1280 wheelie bins	53730
Glass	Yes	DSO	45/55 box, 360/660/770 wheelie bins	53730
Textiles/Shoes	Yes	N/A	Bring bank	53730
Garden Wastes	Yes	DSO	240L wheeled containers	53730
Residual wastes	n/a	n/a	n/a	53730
Clinical (healthcare) wastes	Yes	DSO	Sacks/Sharps boxes	53730
Nappies	n/a	n/a	n/a	53730
Food wastes	n/a	n/a	n/a	53730
Bulky items	Yes	DSO		53730
Large WEEE	n/a	DSO	n/a	53730
Small WEEE	n/a	DSO	n/a	53730
Post consumer batteries	Yes	n/a	Bags	53730
Trade waste residual	n/a	DSO	n/a	53730
Trade waste recycling	n/a	DSO	n/a	53730
Street sweepings	Yes	DSO	Mechanical sweeper	53730
Waste arising from fly tipping	Yes	DSO	Sacks	53730
Street cleansing	Yes	DSO	Sacks	53730
Other (please state)				53730

Ashfield DC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper	Yes	Contracted	1100L
Card	Yes	Contracted	
Plastics	n/a		
Metals	n/a		
Glass	Yes	Contracted	1100L
Textiles/Shoes	Yes	Contracted	1100L
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	n/a		
Post consumer batteries	n/a		
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Other (please state)	n/a		

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Bassetlaw DC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	240/140L wheeled containers	50,821
Card	Yes	DSO	240/140L wheeled containers	50,821
Mixed Plastic bottles	Yes	DSO	240/140L wheeled containers	50,821
Metals	Yes	DSO	240/140L wheeled containers	50,821
Glass	n/a	n/a	n/a	n/a
Textiles/Shoes	n/a	n/a	n/a	n/a
Garden Wastes	n/a	n/a	n/a	n/a
Residual wastes	n/a	n/a	240/140L wheeled containers	50,821
Clinical (healthcare) wastes	Yes	DSO	Sacks/Sharps boxes	50,821
Nappies	n/a	n/a	n/a	n/a
Food wastes	n/a	n/a	n/a	n/a
Bulky items	Yes	DSO	Loose	n/a
Large WEEE	Yes	DSO	Loose	50,821
Small WEEE	n/a	n/a	n/a	n/a
Post consumer batteries	n/a	n/a	n/a	n/a
Trade waste residual	Yes	DSO	Sacks/240L/1100L wheeled containers	50,821
Trade waste recycling	n/a	n/a	n/a	n/a
Street sweepings	Yes	DSO	Mechanical sweeper	50,821
Waste arising from fly tipping	Yes	DSO	Loose	50,821
Street cleansing	Yes	DSO	Sacks	50,821
Other (please state)	Asbestos	DSO	Loose/Bagged	50,821

Bassetlaw DC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper	Yes	DSO	1100L
Card	Yes	DSO	1100L
Plastics	Yes	DSO	1100L
Metals	Yes	DSO	1100L
Glass	Yes	DSO/Contractor	1100L/Igloo
Textiles/Shoes	Yes	Contractor	Bring Banks
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	n/a		
Post consumer batteries	n/a		
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Other (please state)	n/a		

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Broxtowe BC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	Sacks/140/240/1100L wheeled containers	49465
Card	Yes	DSO	Sacks/140/240/1100L wheeled containers	49465
Mixed Plastic bottles	Yes	DSO	Sacks/140/240/1100L wheeled containers	49465
Metals	Yes	DSO	Sacks/140/240/1100L wheeled containers	49465
Glass	Yes	DSO	Bags/140L wheeled containers	49465
Textiles/Shoes	No	Contracted	Bring banks	49465
Garden Wastes	Yes	DSO	140/240L wheeled containers	49465
Residual wastes	n/a	DSO	Sacks/140/240/1100L wheeled containers	49465
Clinical (healthcare) wastes	Yes	DSO	Sacks	49465
Nappies	n/a	n/a	n/a	
Food wastes	n/a	n/a	n/a	
Bulky items	Yes	DSO	Loose	49465
Large WEEE	Yes	DSO	Loose	49465
Small WEEE	No	DSO	n/a	
Post consumer batteries	No	n/a	n/a	
Trade waste residual	Yes	DSO	140/240/660/1100L wheeled containers	49465
Trade waste recycling	Yes	DSO	140/240/660/1100L wheeled containers	49465
Street sweepings	Yes	DSO	Mechanical sweeper	49465
Waste arising from fly tipping	Yes	DSO	Loose	49465
Street cleansing	Yes	DSO	Sacks	49465
Other (please state)	n/a	n/a	n/a	

Broxtowe BC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper	Yes	DSO/Contractor	1100L
Card	Yes	DSO/Contractor	1100L
Plastics	Yes	DSO/Contractor	1100L
Metals	Yes	DSO/Contractor	1100L
Glass	Yes	Contractor	Igloos
Textiles/Shoes	Yes	Contractor	Bring Banks
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	n/a		
Post consumer batteries	n/a		
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Other (please state)	n/a		

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Local Authority Compliance Template for Waste Collection Authorities

Gedling BC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	140/240/360/1100L wheeled containers	51570
Card	Yes	DSO	140/240/360/1100L wheeled containers	51570
Mixed Plastic bottles	Yes	DSO	140/240/360/1100L wheeled containers	51570
Metals	Yes	DSO	140/240/360/1100L wheeled containers	51570
Glass	Yes	DSO	45 - 55 litre Boxes or 140L bins	51570
Textiles/Shoes	n/a	n/a		
Garden Wastes	Yes	DSO	240 wheeled containers	10400
Residual wastes	Yes	DSO	140/180/240/360/1100L wheeled containers	51570
Clinical (healthcare) wastes	Yes	DSO collaboration with other Rushcliffe BC	Sacks/Sharps boxes	Various
Nappies	n/a	n/a		
Food wastes	n/a	n/a		
Bulky items	Yes	DSO	Loose	Various
Large WEEE	Yes	DSO	Loose	Various
Small WEEE	Yes	DSO	Resident Supplied Bags	Various
Post consumer batteries	Yes	DSO	Bags	51570
Trade waste residual	Yes	DSO	240L,360L & 1100L wheeled containers	800.00
Trade waste recycling	n/a	n/a		
Street sweepings	Yes	DSO	Mechanical sweeper	51570
Waste arising from fly tipping	Yes	DSO	Loose	51570
Street cleansing	Yes	DSO	Sacks	51570
Other (please state)				

Gedling BC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper & Card	Yes	Contractor	800L
Plastics	Yes	Contractor	1000L
Metals	Yes	Contractor	800L
Glass	Yes	DSO & Contractor	1000L
Textiles/Shoes	Yes	Contractor	800L
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	Yes	Contractor	600L
Post consumer batteries	Yes	Contractor	100L
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Other (please state)	n/a		

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Local Authority Compliance Template for Waste Collection Authorities

Mansfield DC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	240L,360L & 1100L wheleed containers	47,919
Card	Yes	DSO	240L,360L & 1100L wheleed containers	47,919
Mixed Plastic bottles	Yes	DSO	240L,360L & 1100L wheleed containers	47,919
Metals	Yes	DSO	240L,360L & 1100L wheleed containers	47,919
Glass	n/a			
Textiles/Shoes	n/a			
Garden Wastes	Yes	DSO	240L wheeled container	47,919
Residual wastes	Yes	DSO	180L & 1100L wheeled containers	47,919
Clinical (healthcare) wastes	Yes	DSO	120L wheeled containers	47,919
Nappies	n/a			
Food wastes	n/a			
Bulky items	Yes	DSO	Loose	47,919
Large WEEE	Yes	DSO	Loose	47,919
Small WEEE	Yes	DSO	Loose	47,919
Post consumer batteries	n/a			
Trade waste residual	Yes inc Sch 2	DSO	240L, 360L, 660L 1100L, & 940L wheeled containers	910
Trade waste recycling	Yes inc Sch 2	DSO	240L, 360L, 660L 1100L, & 940L wheeled containers	269
Street sweepings	Yes	DSO	Mechanical sweeper	n/a
Waste arising from fly tipping	Yes	DSO	Loose	n/a
Street cleansing	Yes	DSO	Sacks	47,919
Other (please state)				

Mansfield DC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or	Average container volume
Paper	Yes	DS Smith Recycling	16 Yard container
Card	Yes	DS Smith Recycling	16 Yard container
Plastics	n/a	n/a	n/a
Metals	Yes	Waste Away	
Glass	Yes	Berryman	2.5cu Igloo
Textiles/Shoes	Yes	Planet Aid, British Heart Foundation, Scope, Savana Rags & Salvation Army	Various
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	n/a		
Post consumer batteries	n/a		
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Books	Yes	British Heart Foundation	2.72 cu (M)

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Local Authority Compliance Template for Waste Collection Authorities

Newark & Sherwood DC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	240L,360L & 1100L wheeled containers	52197
Card	Yes	DSO	240L,360L & 1100L wheeled containers	52197
Mixed Plastic bottles	Yes	DSO	240L,360L & 1100L wheeled containers	52197
Metals	Yes	DSO	240L,360L & 1100L wheeled containers	52197
Glass	No	n/a	n/a	n/a
Textiles/Shoes	No	n/a	n/a	52197
Garden Wastes	Yes	DSO & collaboration with other DSO 1 = Rushcliffe 2 = Mansfield 3 = Newark	240L wheeled container	1 = 932, 2 = 348, 3 = 560
Residual wastes	n/a	n/a	n/a	n/a
Clinical (healthcare) wastes	Yes	DSO	Sacks/Sharps boxes	Various
Nappies	No	n/a	n/a	n/a
Food wastes	No	n/a	n/a	n/a
Bulky items	Yes	DSO	Loose	54644
Large WEEE	Yes	DSO	Loose	54644
Small WEEE	Yes	DSO	Loose	54644
Post consumer batteries	Yes	DSO	Bags	54644
Trade waste residual	Yes	DSO	240L,360L & 1100L wheeled containers	Variable
Trade waste recycling	Yes	DSO	240L,360L & 1100L wheeled containers	Variable
Street sweepings	No	n/a	n/a	n/a
Waste arising from fly tipping	No	n/a	n/a	n/a
Street cleansing	No	n/a	n/a	n/a
Other (please state)				

Newark & Sherwood DC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper	Yes	Contractor	
Card	Yes	Contractor	
Plastics	No	n/a	n/a
Metals	No	n/a	
Glass	Yes	Contractor	Igloo's
Textiles/Shoes	Yes	Contractor	Bring Banks
Garden Wastes	No		
Residual wastes	No		
Clinical (healthcare) wastes	No		
Nappies	No		
Food wastes	No		
Bulky items	No		
Large WEEE	No		
Small WEEE	No		
Post consumer batteries	No		
Trade waste residual	No		
Trade waste recycling	No		
Street sweepings	No		
Waste arising from fly tipping	No		
Street cleansing	No		
Other (please state)			

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Local Authority Compliance Template for Waste Collection Authorities

Rushcliffe BC Kerbside Materials	Collected at Kerbside (separate from residual wastes)	In House service or contracted	Container type and volume	Coverage (number of households)
Paper	Yes	DSO	Sacks/240/1100L wheeled containers	47,810
Card	Yes	DSO	Sacks/240/1100L wheeled containers	47,810
Mixed Plastic bottles	Yes	DSO	Sacks/240/1100L wheeled containers	47,810
Metals	Yes	DSO	Sacks/240/1100L wheeled containers	47,810
Glass	Yes	DSO	Sacks/240/1100L wheeled containers	47,810
Textiles/Shoes	Yes	DSO	Bring bank	47,810
Garden Wastes	Yes	DSO	240L wheeled containers	47,810
Residual wastes	n/a	n/a	n/a	n/a
Clinical (healthcare) wastes	Yes	DSO	Sacks/Sharps boxes	Various
Nappies	n/a	n/a	n/a	n/a
Food wastes	n/a	n/a	n/a	n/a
Bulky items	Yes	DSO	Loose	47,810
Large WEEE	n/a	n/a	n/a	n/a
Small WEEE	n/a	n/a	n/a	n/a
Post consumer batteries	Yes	DSO	Bags	47,810
Trade waste residual	n/a	n/a	n/a	n/a
Trade waste recycling	n/a	n/a	n/a	n/a
Street sweepings	Yes	At arms-length fully own company	Mechanical sweeper	n/a
Waste arising from fly tipping	Yes	At arms-length fully own company	Sacks	n/a
Street cleansing	Yes	At arms-length fully own company	Sacks	n/a
Other (please state)				

Rushcliffe BC Bring Site Materials	Collected at bring sites (separate from residual wastes)	In House service or contracted	Average container volume
Paper	Yes	Contractor	FEL Container
Card	Yes	Contractor	Igloo's
Plastics	n/a		
Metals	n/a		
Glass	Yes	DSO	240L/1100LWheeled containers
Textiles/Shoes	Yes	Contractor	Bring Banks
Garden Wastes	n/a		
Residual wastes	n/a		
Clinical (healthcare) wastes	n/a		
Nappies	n/a		
Food wastes	n/a		
Bulky items	n/a		
Large WEEE	n/a		
Small WEEE	n/a		
Post consumer batteries	n/a		
Trade waste residual	n/a		
Trade waste recycling	n/a		
Street sweepings	n/a		
Waste arising from fly tipping	n/a		
Street cleansing	n/a		
Other (please state)	n/a		

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Local Authority Compliance Template for Waste Collection Authorities

Appendix 3

Step 1.3 Using headline budget figures for the last financial year, we have provided workings of the total costs (operational costs to provide the service, including staff) and any income (total) for the last financial year.

Expenditure

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
STAFF	£	£	£	£	£	£	£	£
Management & Administration Staff Wages (inc on costs)	100,678	123,963	60,022	188,200	170,550	93,470	149,174	886,057
Operational Staff wages (inc on costs)	1,094,540	901,420	1,026,487	1,059,600	1,218,081	1,289,088	1,041,894	7,631,110
Casual staff and or agency	11,975	7,400	76,975	48,700	72,940	1,253	55,368	274,611
Other staff related	0	0	0	0	0	48,533	0	48,533
Sub Total (£)	1,207,193	1,032,783	1,163,484	1,296,500	1,461,571	1,432,344	1,246,436	8,840,311

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Vehicles & Plant Direct Operational	£	£	£	£	£	£	£	£
Vehicle & Plant	1,028,405	790,320	486,458	892,200	1,070,229	885,419	1,295,103	6,448,134
Premises & Services	5,708	93,630	5,074	73,567	57,980	27,126	86,214	349,299
Sub Total (£)	1,034,113	883,950	491,532	965,767	1,128,209	912,545	1,381,317	6,797,433

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Operational Supplies	£	£	£	£	£	£	£	£
Plastic Sacks	0	0	10,165	0	9,707	5,125	1,394	26,391
Wheeled Bins	65,000	0	213,297	62,000	75,251	62,780	60,000	538,328
Other	18,763	0	856	44,400	233,110	16,838	87,301	401,268
Sub Total (£)	83,763	0	224,318	106,400	318,068	84,743	148,695	965,987

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	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Waste Disposal inc WDA	£	£	£	£	£	£	£	£
LATS charged back to refuse collection revenue budget	0	0	0	0	0	258,263	0	258,263
Domestic waste disposal charges made to refuse collection budget	0	0	0	0	0	0	0	278,000
Incineration charges to refuse collection revenue budget	0	0	0	0	0	0	0	0
Trade waste disposal charges made to refuse collection revenue budget	139,896	0	137,701	198,200	278,000	0	0	475,797
Recycled waste processing (disposal) costs 3rd party contractors	1,193	0	0	0	0	0	0	1,193
Sub Total (£)	141,089	0	137,701	198,200	278,000	258,263	0	1,013,253

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Contract Payments	£	£	£	£	£	£	£	£
Payments to external	0	0	8,552	0	0	0	0	8,552
Payments to other	998	0	0	0	0	0	0	998
Sub Total (£)	998	0	8,552	0	0	0	0	9.550

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Direct Administration	£	£	£	£	£	£	£	£
All direct administration exc staff expenditure	76,074	41,274	0	15,100	0	0	54,996	187,444
Sub Total (£)	76,074	41,274	0	15,100	0	0	54,996	187,444

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Departmental Administrative	£	£	£	£	£	£	£	£
Finance charges	0	0	0	0	0	0	0	0
Personnel charges	0	0	0	0	0	0	0	0
Administration charges	0	0	0	0	88,647	0	0	88,647
Other charges	0	0	0	0	45,069	0	0	45,069
Sub Total (£)	0	0	0	0	133,716	0	0	133,716

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Total Operational Expenditure	2,543,230	1,958,007	2,025,587	2,581,967	3,319,564	2,687,895	2,831,444	17,947,694

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	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Central Establishment Charges	£	£	£	£	£	£	£	£
Finance	0	0	1,102	87,900	83,924	3,650	0	176,576
Legal	0	0	0	4,800	0	381	0	5,181
Personnel	0	0	35,139	40,900	38,901	32,947	0	147,887
ICT	0	0	0	2,000	9,991	7,860	0	19,851
Insurance	0	0	0	15,000	47,235	0	0	62,235
Customer contact	0	0	0	112,200	0	73,668	0	185,868
All other	231,772	142,352	690	104,300	0	158,044	508,384	1,145,542
Sub Total (£)	231,772	142,352	36,931	367,100	180,051	276,550	508,384	1,743,140

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Total Expenditure	£	£	£	£	£	£	£	£
Total expenditure (exc capital charges) (£)	2,775,002	2,100,359	2,062,518	2,949,067	3,499,615	2,964,445	3,339,828	19,690,834

Income

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Contract	£	£	£	£	£	£	£	£
Same council contract inc CCT /VCT	0	0	2,210,795	0	92,983	23,288	0	2,327,066
Sub Total (£)	0	0	2,210,795	0	92,983	23,288	0	2,327,066

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Discountable Non-contract	£	£	£	£	£	£	£	£
From other councils	0	144,000	0	0	42,500	0	12,270	198,770
From trade wastes	548,000	0	390,548	438,500	616,040	0		1,993,088
From special collections	40,000	14,500	34,154	48,400	122,260	43,781	30,473	333,568
From supply of bins	287,000	22,000	24,376	0	81,220	10,080	0	424,676
From supply of refuse sacks	0	0	0	0	13,830	0	0	13,830
From recycling credits	130,000	48,000	73,101	0	60,000	0	127,073	438,174
Miscellaneous	0	0	63,204	547,300	34,000	0	808,703	1,453,207
Other discountable	0	0		0	462,000	1,394		463,394
Sub Total (£)	1,005,000	228,500	585,383	1,034,200	1,431,850	55,255	978,519	5,318,707

	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Total Income	1,005,000	228,500	2,796,178	1,034,200	1,338,867	31,967	978,519	7,645,773

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	Ashfield DC	Bassetlaw BC	Broxtowe BC	Gedling BC	Mansfield DC	Newark & Sherwood DC	Rushcliffe BC	Totals
Expenditure vs Income	£	£	£	£	£	£	£	£
Front line staff costs	1,106,515	908,820	1,103,462	1,108,300	1,291,021	1,290,341	1,097,262	7,905,721
Operational expenditure (exc CEC & internal payments) (A)	2,543,230	1,958,007	2,025,587	2,581,967	3,319,564	2,687,895	2,831,444	17,947,694
Total expenditure (exc internal payments)	2,775,002	2,100,359	2,062,518	2,949,067	3,499,615	2,964,445	3,339,828	19,690,834
Total (exc payments, domestic waste disposal & incineration)	2,775,002	2,100,359	2,062,518	2,949,067	3,499,615	2,964,445	3,339,828	19,412,834
Net expenditure	1,770,002	1,871,859	1,477,135	1,914,867	1,974.782	2,885,902	2,361,309	13,977,856
Cost per household (A/B) (Op Ex / Property count) (B)	£47.33 53730	£38.53 50821	£40.95 49465	£50.07 51570	£42.00 47919	£51.50 52197	£59.22 47810	

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Appendix 4

Step 1.4: Shows tonnages of material of each type collected through each method

Note 1 indicated Co-mingled breakdown using the Waste Recourses Programme breakdown

Ashfield DC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	5.2	7.3	1.80	1.90	16.20
Card	0.00	0.00	0.00	0.00	0.00
Co-mingled recycling (Note 1)	1873.2	1866.3	1,905.60	2,029.20	7,674.30
Paper & card (81%)	1517.29	1511.70	1543.54	1643.65	6,216.18
Mixed plastic bottles (12%)	224.78	223.96	228.67	243.50	920.92
Mixed cans (7%)	131.12	130.64	133.39	142.04	537.20
Glass	674.9	615.4	565.70	672.00	2,528.00
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	9.1	9.2	7.20	8.40	33.90
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	3.3	8.5	8.40	6.90	27.10
Books	0.00	0.00	0.00	0.00	0.00
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Street Sweepings	430.4	261	159.55	320.89	1,171.84
Total Recycled	**2996.10**	**2767.70**	**2648.25**	**3039.29**	**11451.34**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	1497.8	1726.8	765.70	240.30	4,230.60
Total Composted	**1,497.80**	**1,726.80**	**765.70**	**240.30**	**4,230.60**
Residual Household Waste					
Residual waste	7526.39	7566	7,098.46	7,233.81	29,424.66
Street cleansing	163.08	170.3	303.87	165.28	802.53
Infectious healthcare waste	2.19	1.9	2.27	1.70	8.06
Rejected recyclable material	110.52	113.9	144.83	127.84	497.09
Rejected compostable material	0.00	0.00	0.00	0.00	0.00
Total Residual Waste	**7802.18**	**7852.1**	**7549.43**	**7528.63**	**30732.34**
Total Recycled	5189.22	4793.2	4,568.66	5,261.59	19,812.67
Total Composted	1497.8	1726.8	765.70	240.30	4,230.60
Total Residual Household Waste	7802.18	7852.1	7,549.43	7,528.63	30,732.34
Total Household Waste Collected	**14489.2**	**14372.1**	**12883.79**	**13030.52**	**54775.61**
Other Non-household Waste	296.03	337.82	354.48	299.33	1,287.66
Fly-tipped Waste	27.44	29.26	23.45	26.62	106.77
Total Other Non-household Waste	**323.47**	**367.08**	**377.93**	**325.95**	**1394.43**
Total Collected MSW	14812.67	14739.18	13261.72	13356.47	56170.04
Number of Households	53290	53290	53290	53730	
NI191 Residual Household Waste Collected per Household (Kg's)	146.41	147.43	141.67	140.16	572.03
NI192 Percentage Household Waste sent for Recycling	35.80%	35.60%	30.00%	29.30%	32.90%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Bassetlaw DC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	3.20	4.82	2.86	4.25	15.13
Card	0.00	0.00	0.00	0.00	0.00
Co-mingled recycling (Note 1)	1,613.08	1,592.77	1,417.35	1,657.05	6,280.25
Paper & card (81%)	1306.59	1290.14	1148.05	1342.21	5,087.00
Mixed plastic bottles (12%)	193.57	191.13	170.08	198.85	753.63
Mixed cans (7%)	112.92	111.49	99.21	115.99	439.62
Glass	229.15	252.24	212.57	215.57	909.53
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	23.15	21.93	18.56	22.55	86.19
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	0.35	0.97	0.96	0.88	3.16
Books	1.94	1.65	1.83	1.55	6.97
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Street Sweepings	448.49	315.09	391.54	328.70	1,483.82
Total Recycled	**2319.36**	**2189.47**	**2045.67**	**2230.55**	**8785.05**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	0	0	0.00	0.00	0.00
Total Composted	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Residual Household Waste					
Residual waste	8137.3	7868.85	7,395.43	7,398.15	30,799.73
Street cleansing	236.65	358.23	190.60	228.20	1,013.68
Infectious healthcare waste	5.67	5.56	5.33	5.76	22.32
Rejected recyclable material	84.9	83.82	133.29	105.77	407.78
Rejected compostable material	0.00	0.00	0.00	0.00	0.00
Total Residual Waste	**8464.52**	**8316.46**	**7724.65**	**7737.88**	**32243.51**
Total Recycled	2319.3	2188.79	2,044.60	2,229.99	8,782.68
Total Composted	0	0	0.00	0.00	0.00
Total Residual Household Waste	8464.52	8316.46	7,724.65	7,737.88	32,243.51
Total Household Waste Collected	**10783.82**	**10505.25**	**9769.25**	**9967.87**	**41026.19**
Other Non-household Waste	306.93	338.31	303.15	278.30	1,226.69
Fly-tipped Waste	53.01	42.53	30.48	61.95	187.97
Total Other Non-household Waste	**359.94**	**380.84**	**333.63**	**340.25**	**1414.66**
Total Collected MSW	11143.76	10886.09	10102.88	10308.12	42440.85
Number of Households	50821	50821	50821	50821	
NI191 Residual Household Waste Collected per Household (Kg's)	166.56	163.64	152.00	152.26	634.46
NI192 Percentage Household Waste sent for Recycling	21.51%	20.84%	20.93%	22.37%	21.41%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Broxtowe BC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	0.00	0.00	0.00	0.00	0.00
Card	0.00	0.00	0.00	0.00	0.00
Co-mingled recycling (Note 1)	1,772.46	1,808.20	1,841.92	1,875.44	7,298.02
Paper & card (81%)	1435.69	1464.64	1491.96	1519.11	5,911.40
Mixed plastic bottles (12%)	212.70	216.98	221.03	225.05	875.76
Mixed cans (7%)	124.07	126.57	128.93	131.28	510.86
Glass	535.18	450.83	478.95	539.35	2,004.31
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	15.13	13.63	9.29	8.22	46.27
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	2.90	3.80	3.70	4.73	15.13
Books	4.87	3.20	3.03	2.54	13.64
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Street Sweepings	389.60	294.76	397.87	390.64	1,472.87
Total Recycled	**2720.14**	**2574.42**	**2734.76**	**2820.92**	**10850.24**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	2120.72	2303.46	870.28	225.60	5,520.06
Total Composted	**2,120.72**	**2,303.46**	**870.28**	**225.60**	**5,520.06**
Residual Household Waste					
Residual waste	5686.73	5622.59	5,460.95	5,658.09	22,428.36
Street cleansing	114.28	97.8	104.92	133.48	450.48
Infectious healthcare waste	2.34	2.11	2.18	2.01	8.64
Rejected recyclable material	88.62	90.41	92.10	93.76	364.89
Rejected compostable material	0.00	0.00	0.00	0.00	0.00
Total Residual Waste	**5891.97**	**5812.91**	**5660.15**	**5887.34**	**23252.37**
Total Recycled	2769.03	2595.04	2,767.09	2,900.06	11,031.22
Total Composted	2120.72	2303.46	870.28	255.60	5,550.06
Total Residual Household Waste	5891.97	5812.91	5,660.15	5,887.34	23,252.37
Total Household Waste Collected	**10781.72**	**10711.41**	**9297.52**	**9043**	**39833.65**
Other Non-household Waste	331.48	326.51	350.22	335.44	1,343.65
Fly-tipped Waste	9.67	26.28	17.17	13.05	66.17
Total Other Non-household Waste	**341.15**	**352.79**	**367.39**	**348.49**	**1409.82**
Total Collected MSW	11122.87	11064.2	9664.91	9391.49	41243.47
Number of Households	49465	49465	49465	49465	
NI191 Residual Household Waste Collected per Household (Kg's)	115.69	112.57	117.12	117.32	462.7
NI192 Percentage Household Waste sent for Recycling	45.35%	45.73%	39.30%	34.68%	41.58%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Gedling BC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	24.20	25.93	29.46	20.07	99.66
Card	0.00	0.00	0.00	0.00	0.00
Co-mingled recycling (Note 1)	2017.36	2009.5	2,059.94	2,132.28	8,219.08
Paper & card (81%)	1634.06	1627.70	1668.55	1727.15	6,657.45
Mixed plastic bottles (12%)	242.08	241.14	247.19	255.87	986.29
Mixed cans (7%)	141.22	140.67	144.20	149.26	575.34
Glass	716.06	732.37	676.51	722.44	2,847.38
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	11.1	13.31	14.01	11.27	49.69
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	5.13	5.23	10.48	9.72	30.56
Books	3.7	2.97	1.76	3.24	11.67
Plastics (other than kerbside)	2.16	1.66	1.45	1.81	7.08
Mixed cans (other than kerbside)	2.95	3.77	3.84	3.21	13.77
Street Sweepings	372.14	324.88	228.88	362.12	1,288.02
Total Recycled	**3154.80**	**3119.62**	**3026.33**	**3266.16**	**12566.91**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	1358.4	1470.88	787.90	508.44	4,125.62
Total Composted	**1,358.40**	**1,470.88**	**787.90**	**508.44**	**4,125.62**
Residual Household Waste					
Residual waste	6791.06	6977.2	6,404.56	6,417.38	26,590.20
Street cleansing	6.44	5.58	153.23	15.81	181.06
Infectious healthcare waste	2.59	3.23	2.79	2.46	11.07
Rejected recyclable material	139.93	174.35	149.32	119.59	583.19
Rejected compostable material	0.00	0.00	0.00	0.00	0.00
Total Residual Waste	**6940.02**	**7160.36**	**6709.9**	**6555.24**	**27365.52**
Total Recycled	3154.8	3119.62	3,026.33	3,266.33	12,567.08
Total Composted	1358.4	1470.88	787.90	508.44	4,125.62
Total Residual Household Waste	6940.02	7160.36	6,709.90	6,555.24	27,365.52
Total Household Waste Collected	**11453.22**	**11750.86**	**10524.13**	**10330.01**	**44058.22**
Other Non-household Waste	0.00	0.00	0.00	0.00	0.00
Fly-tipped Waste	10.4	6.1	6.68	5.88	29.06
Total Other Non-household Waste	**10.40**	**6.10**	**6.68**	**5.88**	**29.06**
Total Collected MSW	11,463.62	11,756.96	10,530.81	10,335.89	44,087.28
Number of Households	51300	51360	51360	51570	
NI191 Residual Household Waste Collected per Household (Kg's)	135.28	139.42	130.64	127.11	532.45
NI192 Percentage Household Waste sent for Recycling					38.49%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Mansfield DC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper & card	5.68	4.09	6.12	5.00	20.89
Card	0.00	0.00	0.00	0.00	0.00
Co-mingled recycling (Note 1)	2275.10	1820.36	1,522.92	2,061.72	7,680.10
Paper & card (81%)	1842.83	1474.49	1233.57	1669.99	6,220.88
Mixed plastic bottles (12%)	273.01	218.44	182.75	247.41	921.61
Mixed cans (7%)	159.26	127.43	106.60	144.32	537.61
Glass	220.64	221.1	183.51	213.19	838.44
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	21.07	22.12	21.02	23.78	87.99
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	0.00	0.00	0.00	0.00	0.00
Books	1.63	2.21	1.81	1.32	6.97
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	2.46	2.23	1.18	2.57	8.44
Street Sweepings	456.93	433.14	142.60	345.95	1,378.62
Total Recycled	**2983.51**	**2505.25**	**1879.16**	**2653.53**	**10021.45**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	1992.66	2107.13	997.73	694.61	5,792.13
Total Composted	**1992.66**	**2107.13**	**997.73**	**694.61**	**5792.13**
Residual Household Waste					
Residual waste	5786.21	6376.36	6,437.72	5,811.71	24,412.00
Street cleansing	41.54	93.988	305.50	78.47	519.498
Infectious healthcare waste	5.617	5.646	6.315	5.570	23.148
Rejected recyclable material	115.65	92.89	168.58	201.40	578.520
Rejected compostable material	0.00	0.00	0.00	0.00	0.000
Total Residual Waste	**5949.017**	**6568.884**	**6918.115**	**6097.15**	**25,533.166**
Total Recycled	2983.51	2505.25	1,879.16	2,653.53	10,021.45
Garden wastes	1992.66	2107.13	997.73	694.61	5,792.13
Total Residual Household Waste	5949.017	6568.884	6,918.12	6,097.15	25,533.17
Total Household Waste Collected	**10925.19**	**11181.26**	**9795.005**	**9445.29**	**41,346.75**
Other Non-household Waste	561.64	549.27	541.25	534.00	2,186.16
Fly-tipped Waste	89.68	36.34	40.71	48.88	215.61
Total Other Non-household Waste	**651.32**	**585.61**	**581.96**	**582.88**	**2,401.77**
Total Collected MSW	12020.27	12093.53	10438.49	10145.27	44697.56
Number of Households	47919	47919	47919	47919	
NI191 Residual Household Waste Collected per Household (Kg's)	124.14	137.08	144.37	127.23	532.82
NI192 Percentage Household Waste sent for Recycling	47.67%	42.91%	29.91%	36.23%	39.63%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Newark & Sherwood DC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	9.66	5.79	7.88	5.87	29.20
Card	3.50	3.64	3.51	4.63	15.28
Co-mingled recycling (Note 1)	2116.74	1914.94	2,100.40	2,045.14	8,177.22
Paper & card (81%)	1714.56	1551.10	1701.32	1656.56	6,623.55
Mixed plastic bottles (12%)	254.01	229.79	252.05	245.42	981.27
Mixed cans (7%)	148.17	134.05	147.03	143.16	572.41
Glass	358.29	340.3	334.02	355.75	1,388.36
Beverage cartons Tetra Pak	0.00	0.00	0.00	0.00	0.00
Textiles & shoes	20.99	10.01	8.27	9.27	48.54
Batteries	0.00	0.00	0.00	0.00	0.00
WEEE	0.00	0.00	0.00	0.00	0.00
Books	4.17	3.9	2.24	2.51	12.82
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	3.50	3.64	3.51	4.63	15.28
Street Sweepings	214.62	278.49	216.62	257.15	966.88
Total Recycled	**2731.47**	**2560.71**	**2676.45**	**2684.95**	**10653.58**
Organic Waste					
Mixed food & garden waste	0	0	0	0	0.00
Food waste	0	0	0	0	0.00
Garden wastes	217.94	315.64	186.52	55.10	775.20
Total Composted	**217.94**	**315.64**	**186.52**	**55.1**	**775.2**
Residual Household Waste					
Residual waste	6877.77	7359.94	6,934.78	7,081.72	28,254.21
Street cleansing	327.14	339.06	419.74	393.48	1,479.42
Infectious healthcare waste	5.9	7.17	7.43	7.76	28.26
Rejected recyclable material	141.92	128.56	140.73	138.02	549.23
Rejected compostable material	0.00	0.00	0.00	0.00	0.00
Total Residual Waste	**7352.73**	**7834.73**	**7502.68**	**7620.98**	**30,311.12**
Total Recycled	2727.97	2557.07	2,672.94	2,674.45	10,632.43
Total Composted	217.94	315.64	186.52	55.10	775.20
Total Residual Household Waste	7372.73	7834.73	7,502.68	7,620.98	30,331.12
Total Household Waste Collected	**10318.64**	**10707.44**	**10362.14**	**10350.53**	**41,738.75**
Other Non-household Waste	651.73	604.2	547.51	535.60	2,339.04
Fly-tipped Waste	37.51	40.02	27.20	28.47	133.20
Total Other Non-household Waste	689.25	644.22	574.71	564.08	2,472.26
Total Collected MSW	11007.89	11351.66	10936.85	10914.61	44211.01
Number of Households	54644	54644	54644	54644	
NI191 Residual Household Waste Collected per Household (Kg's)	144.38	157.61	145.30	147.65	594.94
NI192 Percentage Household Waste sent for Recycling	28.11%	26.09%	27.07%	24.57%	26.46%

Revised Waste Framework Directive; Regulations 12 and 13

Local Authority Compliance Template for Waste Collection Authorities

Rushcliffe BC	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	8.35	8.85	14.50	6.12	37.82
Card	24.86	26.34	25.70	22.98	99.88
Co-mingled recycling (Note 1)	1,849.10	1,918.88	1,972.02	1,974.00	7,714.00
Paper & card (81%)	1497.77	1554.29	1597.34	1598.94	6,248.34
Mixed plastic bottles (12%)	221.89	230.27	236.64	236.88	925.68
Mixed cans (7%)	129.44	134.32	138.04	138.18	539.98
Glass	578.96	556.92	519.08	687.98	2,342.94
Beverage cartons Tetra Pak	3.32	1.87	2.61	2.26	10.06
Textiles & shoes	14.00	12.40	7.99	15.45	49.84
Batteries	1.94	2.83	0.00	2.87	7.64
WEEE	7.24	9.30	6.64	10.98	34.16
Books	1.52	0.77	0.87	0.83	3.99
Plastics (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Mixed cans (other than kerbside)	0.00	0.00	0.00	0.00	0.00
Street Sweepings	0.00	0.00	0.00	0.00	0.00
Total Recycled	**2489.29**	**2538.16**	**2549.41**	**2723.47**	**10300.34**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	3,679.50	3,940.46	2,381.72	1,536.74	11,538.42
Total Composted	**3,679.50**	**3,940.46**	**2,381.72**	**1,536.74**	**11,538.42**
Residual Household Waste					
Residual waste	5,159.18	5,127.39	5,249.00	4,908.46	20,444.03
Street cleansing	126.09	88.52	111.25	209.93	535.79
Infectious healthcare waste	6.11	5.98	6.56	5.88	24.53
Rejected recyclable material	76.00	78.87	81.05	81.15	317.07
Rejected compostable material	9.20	9.85	5.95	3.84	28.84
Total Residual Waste	**5,376.58**	**5,310.61**	**5,453.81**	**5,209.26**	**21321.42**
Total Recycled	2,489.29	2,538.16	2,549.41	2,723.47	10,300.34
Total Composted	3,679.50	3,940.46	2,381.72	1,536.74	11,538.42
Total Residual Household Waste	5,376.58	5,310.61	5,453.81	5,209.26	21,321.42
Total Household Waste Collected	**11,545.37**	**11,789.23**	**10,384.94**	**9,469.47**	**43,160.18**
Other Non-household Waste	1.40	1.37	1.51	1.35	5.63
Fly-tipped Waste	27.40	30.44	49.36	44.86	152.06
Total Other Non-household Waste	28.8	31.81	50.87	46.21	157.69
Total Collected MSW	11,574.17	11821.041	10435.814	9515.679	43317.866
Number of Households	47810	47810	47810	47810	
NI191 Residual Household Waste Collected per Household (Kg's)	112	110.25	113.70	108.29	444.24
NI192 Percentage Household Waste sent for Recycling	32.04%	33.64%	48.35%	45.79%	51.07%

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Totals (All Districts)	Q1 Total (tonnes)	Q2 Total (tonnes)	Q3 Total (tonnes)	Q4 Total (tonnes)	Annual Total (tonnes)
Recycling					
Paper	56.29	56.78	62.62	43.21	218.90
Card	28.36	29.98	29.21	27.61	115.16
Co-mingled recycling (Note 1)	13,517.04	12,930.95	12,820.15	13,774.83	53,042.97
Paper & card (81%)	10,948.80	10,474.07	10,384.32	11,157.61	42,964.81
Mixed plastic bottles (12%)	1,622.04	1,551.71	1,538.42	1,652.98	6,365.16
Mixed cans (7%)	946.19	905.17	897.41	964.24	3,713.01
Glass	3,313.18	3,169.16	2,970.34	3,406.28	12,858.96
Beverage cartons Tetra Pak	3.32	1.87	2.61	2.26	10.06
Textiles & shoes	114.54	102.60	86.34	98.94	402.42
Batteries	1.94	2.83	0.00	2.87	7.64
WEEE	18.92	27.80	30.18	33.21	110.11
Books	17.83	14.70	11.54	11.99	56.06
Plastics (other than kerbside)	2.16	1.66	1.45	1.81	7.08
Mixed cans (other than kerbside)	8.91	9.64	8.53	10.41	37.49
Street Sweepings	2,312.18	1,907.36	1,537.06	2,005.45	7,762.05
Total Recycled	**19394.67**	**18255.33**	**17560.03**	**19418.87**	**74628.91**
Organic Waste					
Mixed food & garden waste	0.00	0.00	0.00	0.00	0.00
Food waste	0.00	0.00	0.00	0.00	0.00
Garden wastes	10,867.02	11,864.37	5,989.85	3,260.79	31,982.03
Total Composted	**10,867.02**	**11,864.37**	**5,989.85**	**3,260.79**	**31,982.03**
Residual Household Waste					
Residual waste	45,964.64	46,898.33	44,980.90	44,509.32	182,353.19
Street cleansing	1,015.22	1,153.48	1,589.11	1,224.65	4,982.46
Infectious healthcare waste	30.42	31.60	32.88	31.14	126.03
Rejected recyclable material	757.54	762.80	909.90	867.53	3,297.77
Rejected compostable material	9.20	9.85	5.95	3.84	28.84
Total Residual Waste	**47767.817**	**48846.204**	**47512.785**	**46632.64**	**190759.446**
Total Recycled	21,633.12	20,297.13	19,508.19	21,709.42	83,147.87
Total Composted	10,867.02	11,864.37	5,989.85	3,290.79	32,012.03
Total Residual Household Waste	47,797.02	48,856.05	47,518.74	46,636.48	190,808.29
Total Household Waste Collected	**80297.16**	**81017.56**	**73016.78**	**71636.69**	**305968.18**
Other Non-household Waste	2,149.21	2,157.48	2,098.12	1,984.02	8,388.83
Fly-tipped Waste	255.11	210.97	195.05	229.71	890.84
Total Other Non-household Waste	2404.32	2368.45	2293.17	2213.73	9279.67
Total Collected MSW	82,701.48	83,386.01	75,309.95	73,850.42	315,247.85
Number of Households	355249	355309	355309	355959	355,959
NI191 Residual Household Waste Collected per Household (Kg's)	944.46	968.00	944.80	920.02	3773.64

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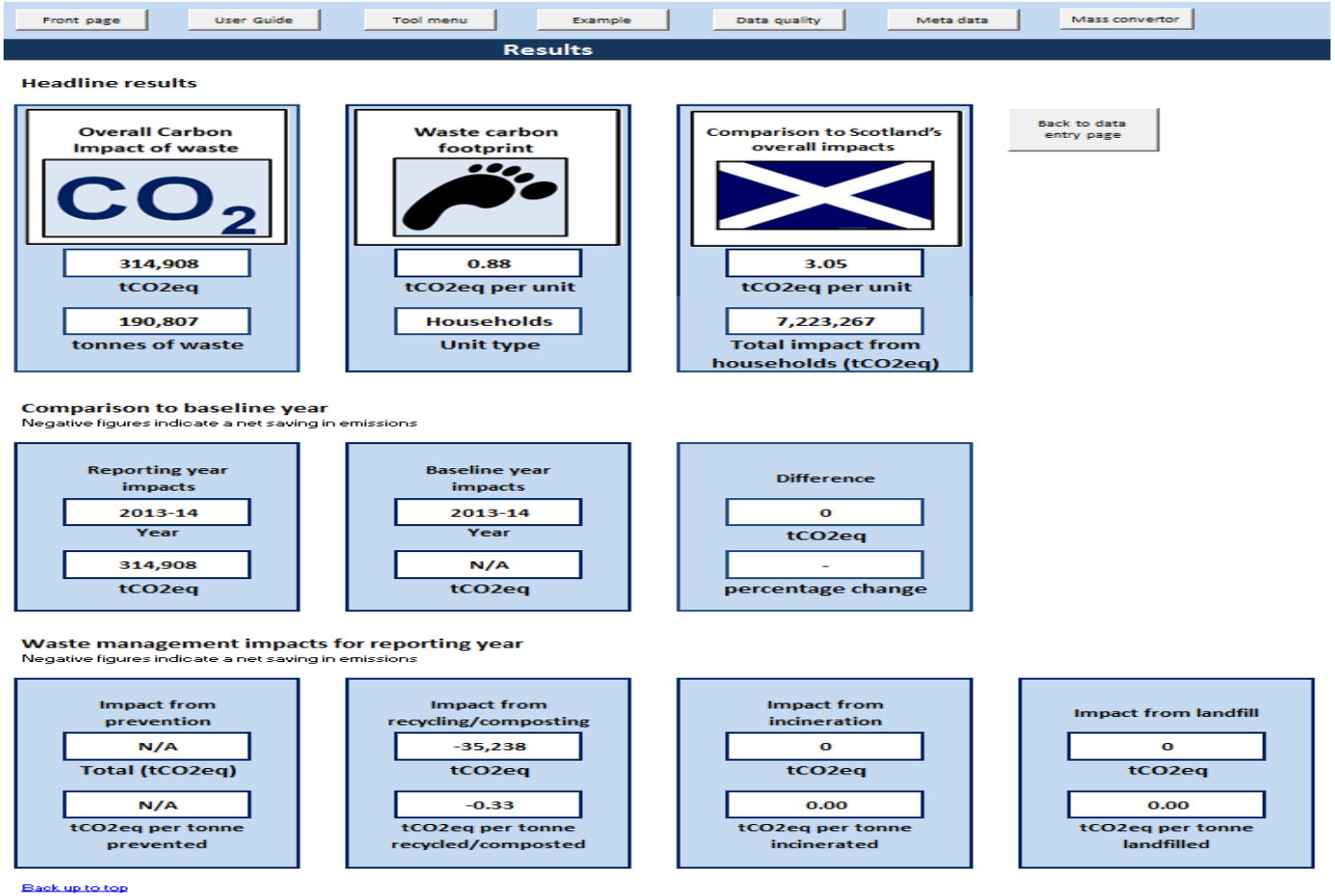
Appendix 5

Step 2.1: Assessing the environmental base line performance of the NWP's current waste and recycling management approach in terms of CO_2 equivalent.



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Results

Detailed results

The materials with the greatest carbon impact from waste arisings and from landfill in the **Reporting Year** are highlighted as green cells

Waste material by Waste Statistics Regulation category	Reporting year waste (tCO2eq)				Baseline year waste (tCO2eq)				Difference (tCO2eq)			
	Arisings	Recycled/ composted	Incinerated	Landfilled	Arisings	Recycled/ composted	Incinerated	Landfilled	Arisings	Recycled/ composted	Incinerated	Landfilled
Spent solvents												
Acid, alkaline or saline wastes												
Used oils	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Chemical wastes												
Industrial effluent sludges												
Sludges & liquid wastes from waste treatment												
Health care & biological wastes												
Metallic wastes, ferrous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metallic wastes, non-ferrous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metallic wastes, mixed	28,367.3	-9,215.0	0.0	0.0	0.0	0.0	0.0	0.0	28,367.3	-9,215.0	0.0	0.0
Glass wastes	12,979.8	-4,706.4	0.0	0.0	0.0	0.0	0.0	0.0	12,979.8	-4,706.4	0.0	0.0
Paper & cardboard wastes	41,916.1	-14,830.8	0.0	0.0	0.0	0.0	0.0	0.0	41,916.1	-14,830.8	0.0	0.0
Rubber wastes	0.0	0.0			0.0	0.0			0.0	0.0		
Plastic wastes	58,312.2	-1,439.7	0.0	0.0	0.0	0.0	0.0	0.0	58,312.2	-1,439.7	0.0	0.0
Wood wastes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Textile wastes	125,575.9	-18.6	0.0	0.0	0.0	0.0	0.0	0.0	125,575.9	-18.6	0.0	0.0
Waste containing PCB												
Discarded machines and equipment	9,870.7	-19.9		0.0	0.0	0.0		0.0	9,870.7	-19.9		0.0
Discarded vehicles	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	
Batteries & accumilators wastes	0.0	-3.7		0.0	0.0	0.0		0.0	0.0	-3.7		0.0
Animal & mixed food waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vegetal wastes	0.0	-1,313.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1,313.6	0.0	0.0
Animal faeces, urine & manure												
Household & similar wastes	73,020.5	-3,690.1	0.0	0.0	0.0	0.0	0.0	0.0	73,020.5	-3,690.1	0.0	0.0
Mixed & undifferentiated materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sorting residues												
Common sludges												
Mineral waste from construction & demolition	103.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	103.6	0.0	0.0	0.0
Other mineral wastes												
Combustion wastes												
Soils	0.0	0.0		0.0	0.0	0.0		0.0				
Dredging spoils												
Mineral waste from waste treatment & stabilised wastes												
Total	**350,146.0**	**-35,237.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**350,146.0**	**-35,237.9**	**0.0**	**0.0**

KEY

- No carbon factor exists for this waste category
- Not a viable waste management route
- Top three arisings or landfill impacts

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Appendix 6

Step 4.2: The Practicability Test - Economical Infrastructure Assessment

	Current Collections					Box Collections Scenario Infrastructure Assessment								
	Property Count	**No of Vehicles** per Week a, Dry Rec b, Glass	**Staffing** a, No of Collection Rounds b, No of Operatives c, Employee costs	**Property Served per Week per Collection Round** Averaged across all recycling collection rounds	**Cost (£) of REL RCV 32 tonne** (x No: of Vehicles)	**No: of Boxes required as Replacement for Recycling Bins** a) 3x55 Litre Paper & Card b) 2x44 Litre Cans/Plastics The number of boxes gives 253 litres of capacity but takes in to account the WDF % breakdown of a standard 240L wheeled bin at (81%,12% & 7%)	**No: of Boxes Required Glass Recycling** 1x44 Litre Maximum HSE advised size for glass collections	**Cost of Boxes**	**No of Vehicles** per Week	**Cost (£) of Kerbside Loader 23 tonne** (x No: of Vehicles)	**Staffing** a, No of Collection Rounds b, No of Operatives c, Employee costs	**Property Served per Week**	**Cost (£) change Management (publicity)** This includes Leaflet, calendar and delivery & call centre costs per enquiry call	**Total Costs (£)** Column 8, 10, 11 & 13
Local Authority	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ashfield DC	53730	A9 B1.5	a9 b 31.5 c 125000 drivers (pro rata for 2 weekly c 215000(pro rata for 2 weekly	1300		a = 161,190 @£2.20ea £345,618 b = 107,460 @£2.10ea £225,666 Total = £571,284	560,00 boxes out at present £0.00 cost	£571,284	Glass 2 (already costed) Dry rec 6	@ £140,000 Total £840,000	1.5 rounds per week. 2 rounds week 1 :1 round week 2 a, 11 b, 18 1 driver 25k and 2 loaders 20k per crew £390,000	Glass 14000 Dry Rec 5000	Total £20,000	£1,821,284
Bassetlaw DC	50821	a- 4 b - 0	a, 8 b, 21 c, @£24500 Total £508,000	6352	@£170,000 Total £680,000	a, 152,463 @ £2.20ea £335,418 b, 101,642 @ £2.10ea £213,448 Total - £548,866	50,821 @ £2.10ea Total - £106,724	£655,590	6	@ £140,000 Total £840,000	a,12 a,18 c,@ £24,500 Total £441,000	5000	Leaflets @ £0.48 per property Total - £24,394 Call centre £28,000 Gross total £52,394	£1,988,984

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	Current Collections					Box Collections Scenario Infrastructure Assessment								
Broxtowe BC	49528	a. 4 b. 1	a. 5 per week b.15 c.£9712.50 per week Annual Total £505,050	9906	4 x RCV @£152k =£608.000 1 x Glass Kerbsider £125,000 Total £733.000	a. 148,584 @ £2.20ea =£326,884 b. 99056 @ £2.10 = £208,017 Total = £534,901	49528 @ £2.10 = £104,008	£638,909	5	@£140,000 Total £700.000	a. 10 Per week b. 15 c.£1165.5 per week Total £909,090	5000	Leaflets @54pence per property £26,711 Call Centre Enquiry assuming a 20% take up £44,518	£2,292,517
Gedling BC	51570	a. 5 b.1.25	a.5 b. 16 c. £320,000	6000	6 x £170000 = £1,020,000	a, 154,710 @ £2.20ea £340,362 b = 103,140 @£2.10ea £216,594 Plus lids £1.00 = £257,850 Total = £814,806	N/A already in place	£814,806	6	@ £140,000 Total £840,000	a, 6 b, 18 c, £528,000	5000	50 pence per property = £25,785 Call centre = £30,000 Total £ 55,785	£2,238,591
Mansfield BC	47919	a) 7 b)0	a) 7 b) 21 c) @£22,164 Total £465,444	6845	£170,000 Total = £1,190,000	a =143,757 @ £2.20ea £316,265 b = 95838 @ £2.10ea £210,259 Total = £526,524	47919 @ £2.10ea Total = £100,629	£618,153	11 AWC Rate (6)	£140,000 Total = £1,540,000 AWC rate (£840,000)	a, 11 b, 33 c, £709,248 AWC rate (£354,624)	4,356	Leaflets = £23,000 Call centre 20% enquiry rate = £60,000	£2,927,401 AWC rate (£1,872,777)
Newark & Sherwood DC	52197	a. 5 b. 0	a. 10 b. 30 c. @£25,000 Total £750,000	4746	@£120,000 Total £600,000	a= 156,591 @ £2.20ea £344,500 b = 104,394 @£2.10ea £219,227 Total = £563,727	52197 @£2.10ea Total = £109,614	£673,340	7	@£140,000 Total £980,000	a.13 b.21 c @£25,000 Total £525,000	4250	Leaflets @£0.48p Total £25,055 Call Centre 15% enquiry call rate @£2.59 per call Total £20,279 Gross Total £45,334	£2,223,674

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	Current Collections					Box Collections Scenario Infrastructure Assessment								
Rushcliffe BC	47810	a, 4 b, 0	a, 7 b, 20 c, @£25,000 Total £500,000	6830	@£170,000 Total £680,000	a = 143,430 @ £2.20ea £315,546 b = 95,620 @£2.10ea £200,802 Total = £516,348	47810 @£2.10ea Total = £100,401	£616,749	6	@£140,000 Total £840.000	a, 11 b, 18 c,@£25,000 Total £450,000	5000 Additional to this we have 1x isolated properties round	Leaflets @£0.48p Total £22,948 Call Centre Enquiry assuming a 15% call rate Total £28,686 Gross Total £51,634	£1,958,383