Material change for a better environment

Local Authorities Plastics Collection Survey 2008

Project code: MDP008
Research date: November 2007 – April 2008

ISBN: 1-84405-387-3
Date: May 2008

WRAP helps individuals, businesses and local authorities to reduce waste and recycle more, making better use of resources and helping to tackle climate change.

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Front cover photography: Image supplied by Valpak

Executive summary

Purpose of this Report

At the end of 2007, WRAP commissioned Valpak Consulting to produce the fourteenth Local Authorities' Plastics Collection Report. The Report is based on the findings of a comprehensive survey of UK local authorities in 2007, carried out by Recoup. The response rate to the survey was very high, with 380 local authorities (80%) submitting information to some degree. The purpose of the Report is to inform various industry stakeholders such as local authorities, waste management companies, reprocessors and WRAP on current plastic bottle and 'other plastic' collection practices, collection/recycling levels and future plans of local authorities.

Assumptions & Estimations

Where data was missing due to non-responses or incomplete returns from local authorities, the quantities of plastic bottles collected, number of households on dry recyclate collection rounds and number of bring sites were estimated by Recoup. Details of the quantities of plastic bottles collected and the source of data, is given in Appendix I of this Report.

Total Quantity of Plastic Bottles Collected

From the 2008 Survey analysis, the total quantity of plastic bottles collected in the UK in 2007 was **181,887 tonnes**. This is a considerable **increase of approximately 68%** on the 2006 total quantity of 108,453 tonnes. The number of local authorities offering plastic bottle collections this year was recorded as 437 or 92%, where estimations based on respondents to last year's survey are included.

Approximately 525,300 tonnes of plastic bottles were consumed in households throughout the UK in 2007. If the total quantity of plastic bottles actually collected in 2007 was 181,887 tonnes, then approximately 35% of plastic bottles that were consumed by householders were collected. Using this consumption figure, the trend indicates collection rates of 50%, 71% and 94% in 2008, 2009 and 2010 respectively but the likely scenario is the trend will plateau at around the projected 2009 rate of 71% as growth in the number of collection schemes slows.

Collection Infrastructure (Bring Schemes)

In 2007, approximately 34,482 tonnes (19%) were collected through local authority bring schemes; an increase of 36% (9,136 tonnes) on 2006 data. 321 (73%) local authorities have bring collection facilities and 188 local authorities (43%) provide both bring and kerbside collections of plastic bottles. In 2007 the number of bring sites has risen to 7,750 across the UK, a 22% increase since the end of 2006. Reported forecasts suggest a continued rise in bring facilities over the next year; approximately 9,142 sites are expected to be operational by the end of 2009.

Almost 50% the Local Authority Recycling Officers who responded (233) were unable to indicate current levels of expenditure on their bring collection systems, after income from materials. Of the other half that did know their costs, the largest proportion (16%) spent less than £2,500 per year. Using £1,250 (the midpoint of this range) to calculate an indicative cost per tonne (for the authorities in this cost bracket), gives an average cost of £31 per tonne, after income from materials is deducted. Including income for materials would give an indicative cost of £121 - £171 per tonne at today's price of £90 - £140 per tonne of mixed bottles[1]. The overall figures show there is no obvious correlation between expenditure and average (mean) quantity of plastic bottles collected by a local authority bring scheme.

Collection Infrastructure (Kerbside Schemes)

In 2007, approximately 147,405 tonnes (81%) of plastic bottles were recovered through kerbside collections, an increase of 77% (64,298 tonnes) on 2006. 304 local authorities (70%, or 77% if WDAs are discounted) provide kerbside collections for approximately 14.4 million households (57%), an increase of approximately 400,000 households (3%) since the end of

[1] *www.letsrecycle.com, 28th March 2008*

2006. Reported forecasts suggest a continued rise in the number of households with a plastic bottle kerbside collection over the next two years, to 15.6m households by the end of 2009.

The most frequent "Number 1 Reason" selected for not having a kerbside collection scheme of plastic bottles was 'lack of spare compartments in kerbside collection vehicles'. Cost was the second 'Number 1 Reason' although 'Currently focussing on heavier materials to hit recycling targets' received a higher number of combined ratings when the second and third reasons are included.

Value of Plastic Bottle Collections

Of the 302 respondents to this part of the survey, 127 local authority Recycling Officers (42%) declared that their plastic bottle recycling schemes were a significant additional cost to their activities, but that they were a worthwhile ongoing element of their recyclables collections. Almost as many (119, 39%) thought it cost little or no extra to collect plastic bottles for recycling than it did for landfill/other disposal method.

Types of Other Plastics Collected

From the survey results, 108 local authorities out of the 475 local authorities in the UK (23%) indicated that they offered some form of 'other plastics' collection, a 32% increase on 2006 (82 local authorities). However WRAP believes that this response reflects the fact that bottle collections often pull in "other plastics" and it therefore may overstate the number of authorities that are actively promoting the collection of other non-bottle plastics.

Collections have increased for all types of plastics, other than EPS, and carrier bags and food tubs & trays are the most commonly collected other household plastics. Quantities collected ranged from 1 to 2,562 tonnes per year, with a total reported quantity of 10,857 tonnes. 74% of recycling officers reported that they did not know the primary market for their other plastics; 15% believed it remained in the UK and the remaining 11% believed it was exported. Of the local authorities not implementing a collection scheme for other household plastics the largest proportion (25%) was concerned with the lack of UK markets, followed by the lack of a suitable local baling/handling facility.

Recycling of Plastic Bottles

Local authorities tend to target 'mixed bottles' in their plastic bottle collection schemes; the bottles collected are most commonly made from HDPE or PET and are the bottle type currently of highest value to local authorities. However, due to the nature of household collections it is rare to receive just the materials requested, due to human error and misunderstanding. From an analysis of plastic bottles received at Valpak Northwest's MRF in July to December 2007, a typical profile of 'plastic bottle collections' in the UK was established. Whilst the majority of material received (77%) were HDPE and PET bottles, there was approximately 23% that could be classified as contamination[2] and included materials such as aluminium and steel cans, other plastics and unusable waste (labels, caps, other).

The sample material was analysed according to the region of the UK in which it was collected and the time of year. It was found that only relatively minor regional variations existed, with Northern Ireland having the lowest level of contamination (less than 11%) and Yorkshire and Humber the highest (approximately 30%). No variation in profile was identifiable from the seasonal analysis, possibly due to the UK suffering the wettest summer on record in 2007 and the soft drinks industry experiencing reduced growth in sales[3].

Taking just the HDPE and PET bottles, a further analysis was carried out to establish the typical split of the two bottle types. The average overall (National) split of bottles was found to be 48% HDPE and 52% PET. This split was found to be very similar across the different regions of the UK, with PET plastic bottles remaining slightly dominant in each region.

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[2] Where plastic bottles are collected with cans and/or other materials, these should not be considered 'contaminants'. However, for the purpose of this exercise only mixed bottle collections were sampled and mapped.

[3] http://www.talkingretail.com/top-100-grocery-brands/8795/Weather-hits-soft-drinks-but-s.ehtml

The South East of England showed the highest levels of plastic bottle recycling according to the 2008 Survey data and Valpak North West sample analysis, with 21,612 tonnes. London, Eastern and North West were the next highest achievers, with the North East and West Midlands showing the lowest levels (3,436 tonnes and 4,982 tonnes respectively).

Sale of Plastic Bottles

Of the 109 respondents who were aware of how their plastic sales were managed, 41 (38%) indicated that they had a contract for their plastic bottles and 68 (62%) stated that they use spot markets. Where contracts were in place their duration varied, but the majority were fixed for six months to five years. When asked who decides where the collected plastic bottles are sold, almost three-quarters (72%) of local authorities said it was their contractors. However, 15% stated that they decided themselves and the remainder did not know.

Of the 309 respondents almost half (47%) of local authorities do not see the revenue from their plastic bottle collections, as the sales revenue is received by their contractors. Approximately 17% of local authorities stated that they shared the revenue with their contractors and 15% received the revenue from material sales directly. Of the respondents who knew in which format they sold their plastic bottles, the majority stated that they were mixed bottles.

In 2007, 25% of local authorities stated that the plastic bottles they collect are sold to a UK market, compared with 8% that export outside the EU and 3% that export within the EU. 41% of were unaware of where their bottles were sold, with the remaining 23% not responding.

New Technologies

Local authorities were asked if they were planning to introduce any new waste technologies over the next 10 years, for which 178 indicated that they were. 34% of respondents were unsure of what technologies were to be introduced either because the WDA or waste management contractor has this responsibility, or because new technology options were under investigation. For those that could identify specific technologies, EFW (46 LAs) and MBT plants (43 LAs) were the most frequently cited options; more than twice as many local authorities than in 2006. Over half of the planned developments are intended to be implemented over the next 5 years, although nearly one third of respondents were unsure of their implementation timescales.

Most authorities consider bioplastics to cause waste stream challenges and contamination, although a significant proportion are unsure about their impacts. In addition the majority of respondents indicated that they were unsure about how to handle bioplastics but some did think that a public awareness campaign to reduce likely issues is necessary.

Key Findings

- The number of local authorities offering plastic bottle collections was 437 or 92%. The quantity has increased considerably (68%) to 181,887 tonnes; a collection rate of 35%.
- Both the quantity of plastic bottles collected through bring schemes (34,482 tonnes, 19%) and the number of bring banks available (7,750) have increased in 2007.
- 321 (73%) of local authorities have bring collection facilities, however, an increasing number of Local Authorities collect plastic bottles solely through kerbside schemes; 27% in 2007 compared to 18% in 2006.
- The quantity of plastic bottles collected through kerbside schemes has dramatically increased; 304 local authorities (70%) provide kerbside collections for approximately 14.4 million households (57%).
- The number of local authorities collecting other household plastics has increased by almost one third in 2007; 108 local authorities (23%) now offer some form of collection. The total reported quantity of other plastics collected was 10,857 tonnes.
- More than three-quarters of material collected (77%) is recyclable PET or HDPE plastic bottles, with an average split found to be 48% HDPE and 52% PET.
- The majority of local authorities have no control over where there plastic bottles are reprocessed; 25% believe they are sold into the UK market.
- More than double the number of local authorities (178) reported investigating/ introducing new technologies to improve their waste management activities within the next 10 years.

Contents

Abbreviations

EfW	Energy from Waste
EPS	Expanded Polystyrene
EU	European Union
HDPE	High-density polyethylene
HWRC	Household Waste Recycling Centre
kg/hh/pa	Kilograms per household per annum
l	Litres
LA	Local Authority
m^3	cubic metres
MBT	Mechanical Biological Treatment
MRF	Materials Recycling Facility
PET	Polyethylene terephthalate
UA	Unitary Authority
UK	United Kingdom
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WEEE	Waste Electrical and Electronic Equipment
WRAP	Waste & Resources Action Programme

1.0 Introduction

Purpose of this Report

At the end of 2007, WRAP commissioned Valpak Consulting to produce the fourteenth Local Authorities' Plastics Collection Report. The Report is based on the findings of a comprehensive survey of UK local authorities in 2007, carried out by Recoup.

The purpose of the Report is to inform various industry stakeholders such as local authorities, waste management companies, reprocessors, and WRAP, on current plastic bottle and 'other plastic' collection practices, collection/recycling levels and future plans of local authorities (LAs).

Response Rate

The response rate to the survey was very high, with 380 (80%) local authorities submitting information to some degree. The table below breaks down the responses received both by country and type of authority.

Figure 1 Survey Response Rates, by Country and Authority Type

	Response Rates			
	WCA	Unitary	WDA	Combined
England	**223** (82%)	**64** (76%)	**32** (80%)	**319** (81%)
Northern Ireland	n/a	18 (69%)	n/a	**18** (69%)
Scotland	n/a	27 (84%)	n/a	**27** (84%)
Wales	n/a	16 (73%)	n/a	**16** (73%)
Total	**223** (82%)	**125** (76%)	**32** (80%)	**380** (80%)

As can be seen above the highest response levels were from local authorities in Scotland and from waste collection authorities in England.

Methodology

The survey collected local authority data for 2007 and was carried out by Recoup in January and February 2008. Local authorities were contacted through email and phone as detailed below:

- 473 authorities and waste partnerships were contacted by email to request their participation and provide a link to the internet survey.
- Responses were collected in general through the website, however some were received by fax, post, email and phone call.
- Unresponsive local authorities received up to three reminder emails and phone calls.
- Where no response was received, collection quantities and coverage were estimated, as outlined in 'Assumptions & Estimations' below.
- Data was reviewed and any apparent anomalies checked by telephone with the relevant local authority before analysis.

Assumptions & Estimations

Where data was missing due to non-responses or incomplete returns from local authorities, the quantities of plastic bottles collected, number of households on dry recyclate collection rounds and number of bring sites were estimated by Recoup. Details of the quantities of plastic bottles collected by individual local authorities, and the source of data, is given in Appendix I of this Report.

Primary data on the quantities of plastic bottles collected was received from 181 out of 321

local authorities (56%) believed to have bring schemes and 137 out of 304 local authorities (45%) believed to have kerbside schemes. The methodology employed by Recoup to fill the remaining gaps is described below:

- Where a kerbside collection scheme was reported without tonnage data, an average quantity of plastic bottles per household per year (9.3kg) was applied to the number of households on their dry recyclate collection rounds to give a quantity for the scheme. Where no household figure was given, this was taken from the 2007 Survey. The average tonnage figure was established using data from the local authorities (135) that provided both actual kerbside collection quantities and number of households on their dry recyclate collection rounds.

- Where actual quantities of bring collections were missing, Recoup made an educated estimate (from historical data and experience) of 2kg/hh/pa and applied this figure to the total number of households in the remaining authorities. Where no household figure was given, this was taken from the 2007 Survey.

- A number of gaps were also filled through the use of quantities from the 2007 Survey, for either or both kerbside and bring collections.

Two tables summarising the sources of data used for quantities of plastic bottles collected through bring and kerbside schemes, by number and percentages of local authorities, are given below:

Figure 2 Bring Tonnage Data Sources, by Number and Percentage of Local Authorities

Source of Bring Quantity Data	Number of Local Authorities	Percentage of Local Authorities*
Actual quantity of plastic bottles collected through bring scheme supplied	252	53%
2kg/hh/pa applied to households on residual refuse rounds (number of households supplied)	107	23%
2kg/hh/pa applied to households on residual refuse rounds (number of households from 2007 Survey)	74	16%
Quantity of plastic bottles collected through bring schemes taken from 2007 survey	21	4%
Quantity supplied for mixed plastics collected through bring schemes; 50% assumed to be plastic bottles	1	0%

** The Total Number of Local Authorities is Counted as 475, including Somerset Waste Partnership*

Figure 3 Kerbside Tonnage Data Sources, by Number and Percentage of Local Authorities

Source of Kerbside Quantity Data	Number of Local Authorities	Number of Local Authorities*
Actual quantity of plastic bottles collected through kerbside scheme supplied	259	60%
9.3kg/hh/pa applied to households with dry recyclate collection (number of households supplied)	85	20%
9.3kg/hh/pa applied to households with dry recyclate collection (number of households from 2007 Survey)	61	14%
Quantity of plastic bottles collected through kerbside schemes taken from 2007 survey	24	6%

** The Total Number of Local Authorities is Counted as 435, including Somerset Waste Partnership, but Excluding all Waste Disposal Authorities*

2.0 Overview of Plastic Bottle Collections

Introduction

This section of the Report presents the high-level results of the Survey elements focussed on the collection of plastic bottles, and includes:

- The total estimated quantity of plastic bottles collected, including quantities collected through bring and kerbside collection scheme.
- A breakdown by country of collection quantities and schemes, with indicative annual levels of bring and kerbside collections measured per kilogram, per household.
- Future predictions for plastic bottle collections.
- The mix of plastic bottle collection schemes by country and the respective infrastructure.
- The perceived value of plastic bottle collections to local authority Recycling Officers.

Section 3 and Section 4 of this report provides further detail of the Survey findings relating to bring and kerbside collections respectively. It should also be noted that within this report, references to quantities of plastic bottles collected refer both to the plastic bottles and any other unwanted materials that may mistakenly be mixed into these collections. Section 7 of this Report investigates the profile of plastic bottle collections as sampled at an UK MRF.

2.1 Total Quantity of Plastic Bottles Collected

Total Quantity

From the 2008 Survey analysis, the total quantity of plastic bottles collected in the UK in 2007 is **181,887 tonnes**. This is a considerable **increase of approximately 68%** on the 2006 total quantity of 108,453 tonnes. To put this quantity into context, 181,000 tonnes of plastic bottles is approximately equivalent to 4,525 million plastic bottles, filling a volume of 9 million cubic metres (**m^3**).

Collected Vs Consumed

Approximately 525,300[4] tonnes of plastic bottles were consumed in households throughout the UK in 2007. If the total quantity of plastic bottles actually collected in 2007 was 181,887 tonnes, then approximately 35% of plastic bottles consumed by householders was collected; a 15% increase on 2006. In 2005, 2004 and 2003, the collection rates were 13%, 10.5% and 5.5% respectively.

Growth in Collections

The growth in plastic bottle collection quantities since 1994 is illustrated in Figure 4 below. Collections from 2003 onwards are broken down by kerbside and bring collections, as are the forecasts for 2008-2010.

Forecasts

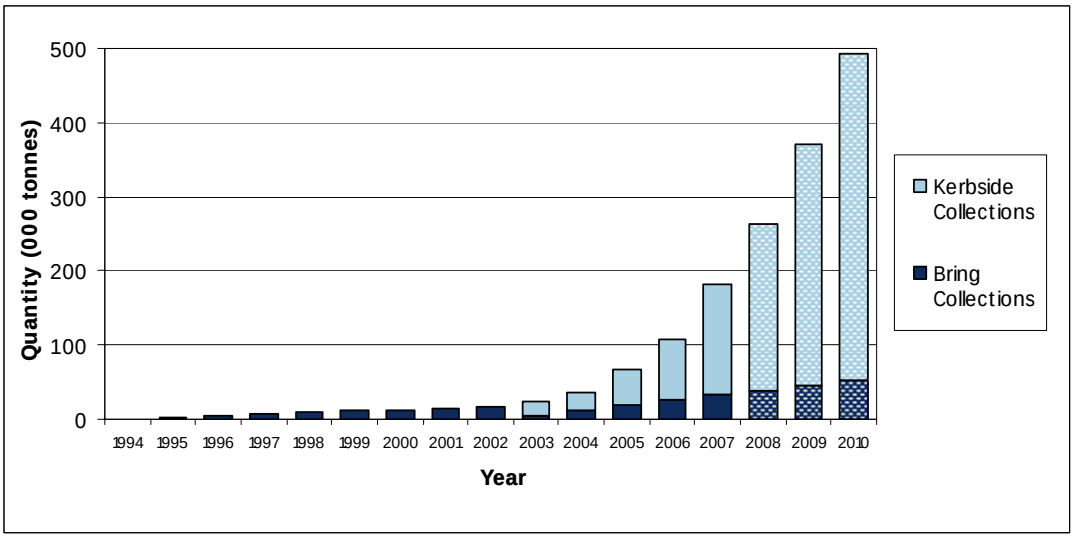
The forecasts for 2008 (264,026 tonnes), 2009 (371,181 tonnes) and 2010 (493,337 tonnes) highlighted in the chart are based on past performance increases being maintained and projected forward for three years[5]. Using a current consumption rate of 525,300 tonnes (please see below for details), these forecasts indicate collection rates of 50%, 71% and 94% respectively. It is highly unlikely that the 2010 level of 94% is achievable; a more likely scenario

[4] This figure is taken from WRAP's Local Authorities Plastics Collection Survey 2007 Report, written by Recoup. Recoup estimates that this figure has not changed significantly. It makes an allowance of ~23k tonnes for away from home waste.

[5] Projections were calculated using regression analysis of bring and kerbside figures independently of one another. The kerbside regression analysis fitted a second order quadratic equation and the bring was a linear fit. Both had high levels of correlation with r2 values above 0.97

is that from 2008 the growth in collections will slow, peaking before or around the 2009 figure of 71%. Collection rates of dry recyclates such as glass and cardboard have peaked at around 50% and 77% respectively (National Packaging Waste Database). Furthermore, the economics of plastic collections may be an additional limiting factor in achieving these projections; particularly their light weight, high volume format.

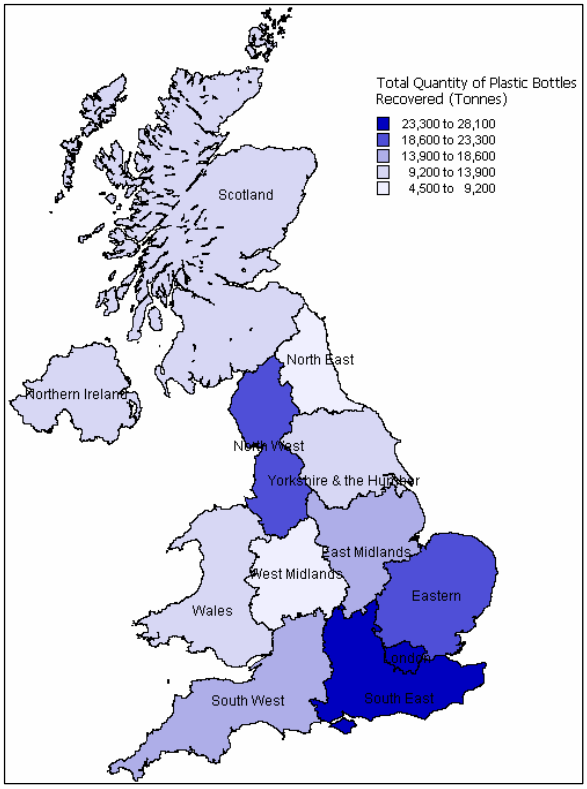
Figure 4 Growth in Plastic Bottles Collections, by Bring and Kerbside Schemes



Total Quantity by Country & Region

The breakdown of this tonnage by country remains very similar to last year, with England accounting for approximately 81% of the total tonnage, Scotland 7%, Northern Ireland 6% and Wales 6%. The Map below illustrates the quantities of plastic bottles collected by UK region. The regions recovering the highest quantities of plastic bottles are the South East, London and Eastern England, with the West Midlands and North East recovering the least.

Figure 5 UK Map of the Total Quantities of Plastic Bottles Collected, by Region



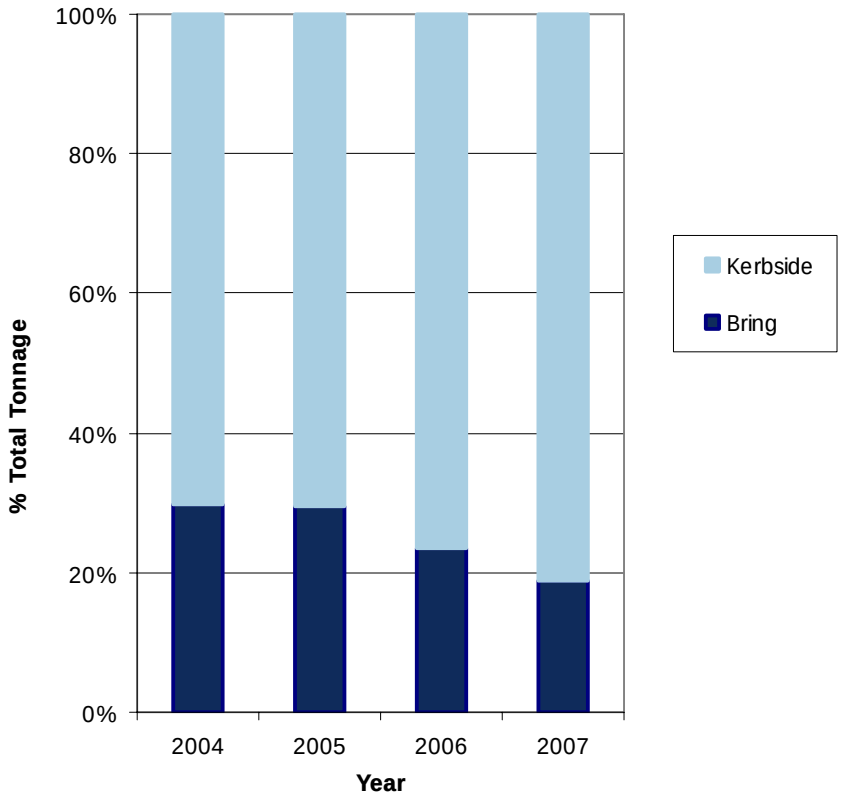
Total Quantity by Local Authority

Please see Appendix I for individual Local Authority plastic bottle collection quantities, broken down by bring and kerbside collections, and including the respective data sources.

Total Quantity by Collection System

The total tonnage can be divided to reflect the quantity of plastic bottles collected through kerbside schemes and those collected through bring schemes. In 2007, approximately 147,405 tonnes (81%) of plastic bottles were recovered through kerbside collections and approximately 34,482 tonnes (19%) were collected through bring schemes. Both bring and kerbside quantities have grown since 2006, from 25,346 tonnes and 83,107 tonnes respectively. However, Figure 6 below illustrates the increasing trend over the last few years for plastic bottles to be collected through kerbside schemes.

Figure 6 Percentage of Plastic Bottles Collected through Bring and Kerbside Schemes



2.2 Breakdown of Total Quantity of Plastic Bottles Collected

Breakdown

A breakdown by country of the total quantity of plastic bottles collected in the UK is given below, along with the quantities of plastic bottles collected through kerbside and bring schemes[6]. In addition, average quantities of plastic bottles collected through bring and kerbside schemes are expressed in kilograms collected per household, per year[7].

[6] *Total Quantities are calculated from a mix of reported and estimated data, please see Section 1 for methodology and Appendix I for a breakdown by Local Authority*

[7] *Average Quantities are calculated from reported data only*

UK *Reported Datasets* *Bring: 253* *Kerbside: 249*	**Total Quantity of Plastic Bottles Collected in 2007**	**181,887 tonnes**
	Through Bring schemes	34,482 tonnes
	Through Kerbside schemes	147,405 tonnes
	Average Quantity Collected through Bring Schemes	**1.9 kg/hh/pa**
	WDAs	0.7 kg/hh/pa
	WCAs	1.6 kg/hh/pa
	UAs	1.1 kg/hh/pa
	Average Quantity Collected through Kerbside Schemes	**9.2 kg/hh/pa**
	WCAs	9.6 kg/hh/pa
	UAs	8.1 kg/hh/pa

England *Reported Datasets* *Bring: 213* *Kerbside: 206*	**Total Quantity Collected in 2007**	**147,643 tonnes**
	Through Bring schemes	27,155 tonnes
	Through Kerbside schemes	120,489 tonnes
	Average Quantity Collected through Bring Schemes	**1.9 kg/hh/pa**
	Average Quantity Collected through Kerbside Schemes	**9.2 kg/hh/pa**

Scotland *Reported Datasets* *Bring: 16* *Kerbside: 17*	**Total Quantity Collected in 2007**	**11,956 tonnes**
	Through Bring schemes	2,584 tonnes
	Through Kerbside schemes	9,373 tonnes
	Average Quantity Collected through Bring Schemes	**0.9 kg/hh/pa**
	Average Quantity Collected through Kerbside Schemes	**8.0 kg/hh/pa**

Wales *Reported Datasets* *Bring: 11* *Kerbside: 13*	**Total Quantity Collected in 2007**	**11,766 tonnes**
	Through Bring schemes	1,927 tonnes
	Through Kerbside schemes	9,839 tonnes
	Average Quantity Collected through Bring Schemes	**0.3 kg/hh/pa**
	Average Quantity Collected through Kerbside Schemes	**11.9 kg/hh/pa**

Northern Ireland *Reported Datasets* *Bring: 13* *Kerbside: 13*	**Total Quantity Collected in 2007**	**10,521 tonnes**
	Through Bring schemes	2,817 tonnes
	Through Kerbside schemes	7,705 tonnes
	Average Quantity Collected through Bring Schemes	**0.5 kg/hh/pa**
	Average Quantity Collected through Kerbside Schemes	**11.0 kg/hh/pa**

Country Comparison

Data for England and Wales indicate that a slightly higher proportion of plastic bottles are collected through kerbside schemes than bring schemes; approximately 82% (147,405 tonnes) and 84% (9,839 tonnes) respectively, in comparison with Scotland (78%) and Northern Ireland (73%). This is a reverse in the reported situation for 2006 when England and Wales collected

75% and 77% of plastic bottles through kerbside schemes respectively and Scotland and Northern Ireland collected 79% and 91% respectively. Due to the small size of the datasets reported for Scotland, Wales and Northern Ireland, the results should be viewed with caution.

2.3 Plastic Bottle Collection Schemes and Infrastructure

LAs with Plastic Bottle Collections

The number of Local Authorities offering plastic bottle collections this year was recorded as 437 or 92%; only slightly higher than the 2006 Local Authority figure of 434. However, the estimated total tonnage of plastic bottles collected is considerably higher (68%), suggesting improved collection effectiveness.[8]

Collection Infrastructure

The two main plastic bottle collection methods used in the UK are bring banks and kerbside collection schemes. Of those authorities collecting plastic bottles, 321 (73%) have bring collection facilities, through 7,750 bring sites, with 304 (70%, or 77% if WDAs are discounted) providing kerbside collections for approximately 14.4 million households (57%). 188 Local Authorities (43%) provide both bring and kerbside collections of plastic bottles; this is shown in Figures 7 and 8 below.

Figure 7 Plastic Bottle Collection Infrastructure by Country

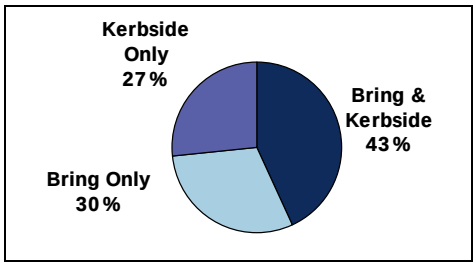
	Total Number of UK		Bring Schemes		Kerbside Schemes		
Country	Households (millions)	Local Authorities	Number of Local Authorities	Number of Sites **	Number of Local Authorities	Number of Households (millions)***	% of Households
England*	21.1	395	264	5,667	237	12.0	57%
Northern Ireland	0.7	26	17	113	26	0.6	86%
Scotland	2.3	32	23	1,813	24	1.0	43%
Wales	1.2	22	17	157	17	0.8	67%
Total	**25.3**	**475**	**321**	**7,750**	**304**	**14.4**	**57%**

** Somerset Waste Partnership is counted as an additional unitary authority in this report*
*** The numbers and percentages in this table are derived from both actual and estimated survey data provided by Recoup*
**** As a considerable number of local authorities did not provide household figures, this data should be viewed with caution*

Types of Collection Schemes

Within the UK, the largest number of Local Authorities (43%) collect plastic bottles through a combination of bring and kerbside schemes; 30% collect through bring schemes only and the remainder (27%) collect through kerbside schemes only. This is shown in the pie chart below.

Figure 8 Types of Plastic Bottle Collection Schemes Operated by Local Authorities



It appears a change is occurring in the way Local Authorities collect plastic bottles, as the proportion of Local Authorities collecting through both bring and kerbside schemes has reduced by 7% from last year and those collecting through bring only has also reduced (5%). This is due to the increasing number of Local Authorities collecting plastic bottles solely through kerbside schemes, which has risen to 27% in 2007; 9% higher than in 2006.

[8] It should be noted that where Local Authorities did not reply (unless they actively stated that they had ceased collecting plastic bottles via bring or kerbside schemes), then estimated data was used based on previously reported bring and/or kerbside quantities, therefore it is expected that the numbers should remain similar.

Collection by Country

Figure 9 provides a breakdown of Local Authority Survey data by type of collection system and by Country. Each country is discussed in further detail below.

Figure 9 Types of Plastic Bottle Collection by Country

Country	Total Number of LAs	Number & Percentage of Local Authorities with Plastic Bottle Collections**									
		Bring or Kebside		Bring & Kerbside		Bring Only		Kerbside Only***		No Collections	
		No.	%	No.	%	No.	%	No.	%	No.	%
England*	395	359	91%	142	36%	122	31%	95	24%	36	9%
Northern Ireland	26	26	100%	17	65%	0	0%	9	35%	0	0%
Scotland	32	31	97%	16	50%	7	22%	8	25%	1	3%
Wales	22	21	95%	13	59%	4	18%	4	18%	1	5%
Total	**475**	**437**	**92%**	**188**	**40%**	**133**	**28%**	**116**	**24%**	**38**	**8%**

** Somerset Waste Partnership is counted as an additional unitary authority in this report*
*** The numbers and percentages in this table are derived from both actual and estimated survey data provided by Recoup*
****Please note kerbside percentages have been calculated including WDAs*

England

From the Survey data, there are 264 bring schemes and 237 kerbside schemes that incorporate the collection of plastic bottles. These schemes are spread across 359 Local Authority areas, 142 of which operate both types of collection. Overall, these schemes cover 91% of English Authorities. The number of bring sites has increased from 4,395 in 2006 to 5,667 in 2007. The percentage of houses covered by kerbside schemes is indicated in Figure 7 above. However, due to missing data on the number of households in the relevant Local Authority areas, this data should be viewed with caution.

Scotland

From the Survey data there are 23 bring schemes and 24 kerbside schemes that incorporate the collection of plastic bottles. These are spread across 31 Local Authority areas, 16 of which operate both types of collection. Overall, these schemes cover 97% of Scottish Authorities. The number of bring sites has increased from 1,571 in 2006 to 1,813 in 2007. The percentage of houses covered by kerbside schemes is indicated in Figure 7 above. However, due to missing data on the number of households in the relevant Local Authority areas, this data should be viewed with caution.

Wales

From the Survey data, there are 17 bring schemes and 17 kerbside schemes that incorporate the collection of plastic bottles. These are spread across 21 Local Authority areas, 13 of which operate both types of collection. Overall, these schemes cover 95% of Welsh Authorities. The number of bring sites has decreased from 215 in 2006 to 157 in 2007. The percentage of houses covered by kerbside schemes is indicated in Figure 7 above. However, due to missing data on the number of households in the relevant Local Authority areas, this data should be viewed with caution.

Northern Ireland

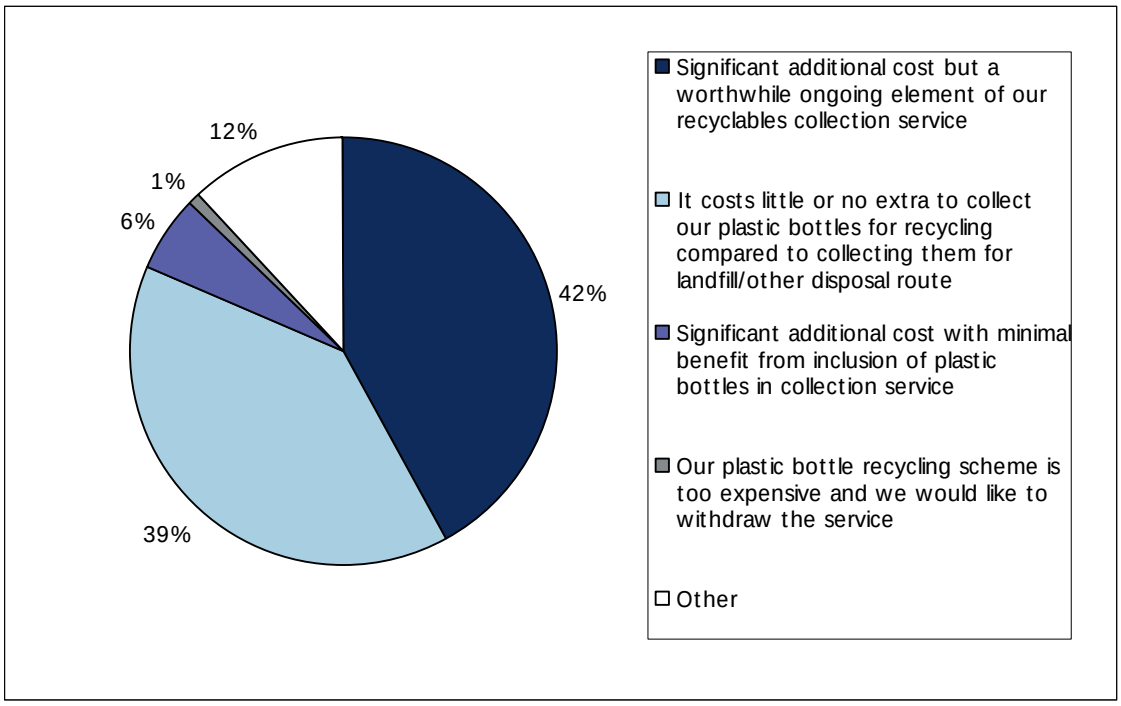
From the Survey data, there are 17 bring schemes and 26 kerbside schemes that incorporate the collection of plastic bottles. These are spread across all 26 Local Authority areas, 17 of which operate both types of collection. Overall, these schemes cover 100% of Northern Irish Authorities. The number of bring sites has decreased from 152 in 2006 to 113 in 2007. The percentage of houses covered by kerbside schemes is indicated in Figure 7 above. However, due to missing data on the number of households in the relevant Local Authority areas, this data should be viewed with caution.

2.4 Perceived Value of Plastic Bottle Collections

Worthwhile Activity

127 local authority Recycling Officers (42%) declared that their plastic bottle recycling schemes were a significant additional cost to their activities, but that they were a worthwhile ongoing element of their recyclables collections. Almost as many (119, 39%) thought it cost little or no extra to collect plastic bottles for recycling than it did for landfill/other disposal method. Only 17 stated that they did not see their plastic collections in such a positive light (7%), with three wishing to withdraw their service due to the expense (1%).

Figure 10 Perceived Value of Plastic Bottle Collections



3.0 Plastic Bottle Collections from Bring Sites

Introduction

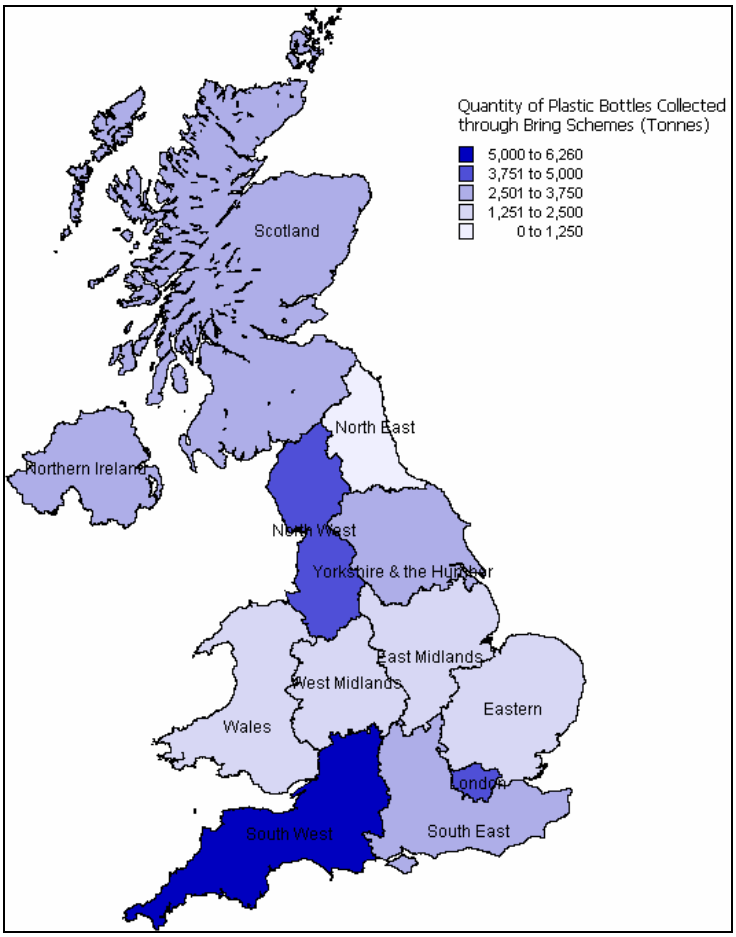
This section of the report provides further insight into Local Authority plastic bottle bring collection schemes, covering:

- Quantities of plastic bottles collected through bring schemes.
- Container types used.
- Collection performance of bring schemes.
- Expenditure.
- Collection of plastic bottles 'away from home'.

Quantities by Region

The total estimated quantity of plastic bottles collected through Local Authority bring sites in 2007 was approximately 34,842 tonnes. The Region collecting the largest quantity was South West England (5,472 tonnes) , followed by North West England (4,784 tonnes) and London (4,569 tonnes). The lowest quantity of plastic bottles collected was in the North East (419 tonnes).

Figure 11 UK Regional Map of the Quantities of Plastic Bottles Collected through Bring Schemes



3.1 Container Type

Most Common Container Types

Survey respondents were questioned on the main type of bring banks to be found at their collection sites. They were given eight bank types to choose from, which are listed below. The most commonly sited type of bins was the 1100 litre wheelbin, followed by the 10 cubic yard bank and skips.

Figure 12 Main Bring Collection Container Type, by Local Authority

Type of Bank	% LAs	Capacity
1100 litre wheelbin	**28%**	1.1m^3
360 litre wheelbin	2%	0.36m^3
240 litre wheelbin	2%	0.24m^3
10 cubic yard bank	**16%**	7.65m^3
8 cubic yard bank	5%	6.12m^3
Triple net cage	1%	10.6m^3
Single net cage	3%	3.54m^3
Skip	**16%**	
Other	26%	

'Other' Bring Containers

26% of Local Authorities that responded stated that they used 'Other' bank types. Although these were not specified, it is likely that they use a combination of the most common types of banks, as listed above.

2006 Comparison

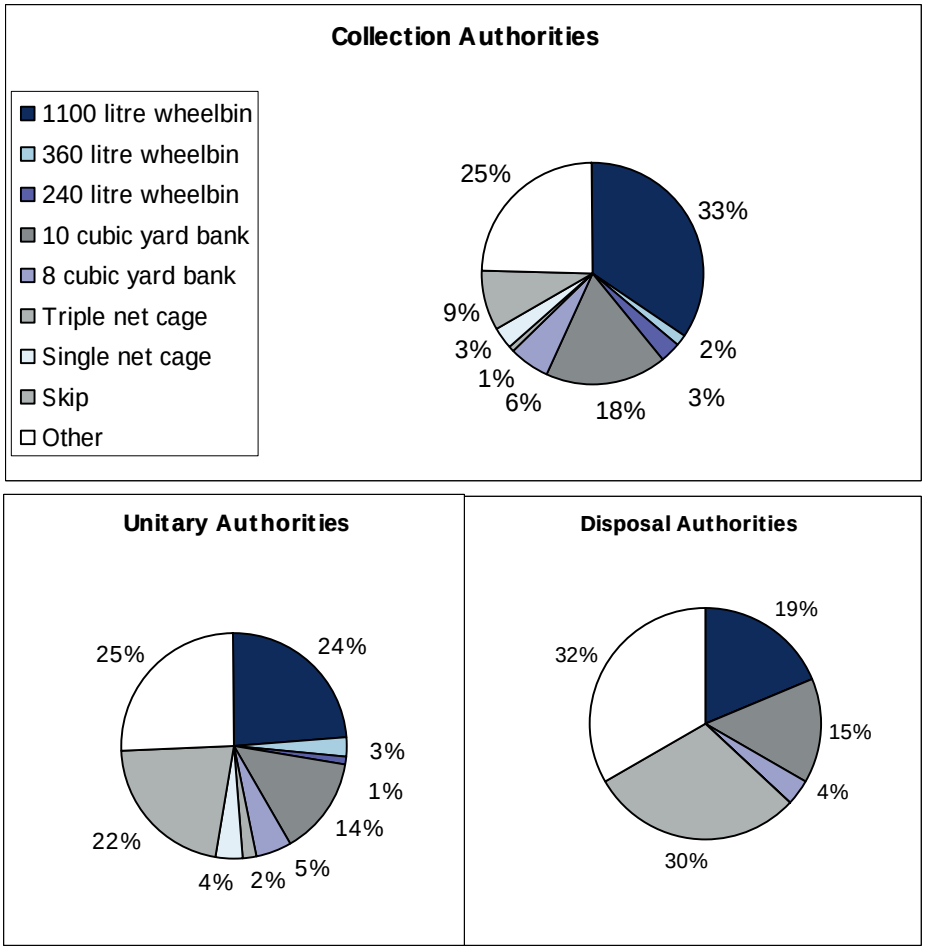
The overall split between different types of banks used by Local Authorities has remained very similar since the 2007 Survey. The main differences that can be seen are an approximate 7% decrease in the number of Local Authorities using 8 cubic yard banks and an approximate 4% increase in the number of Local Authorities using skips.

Containers by Authority Type

Due to the varying waste collection activities of waste disposal, collection and unitary authorities, there are differences in the types of bring banks used. This is illustrated in the pie charts in Figure 13 below, which show that the majority (68%) of disposal authorities are using skips, 1100l bins and either 10 or 8 cubic yard bins.

The profiles for collection and unitary authorities reflect a similar preference for skips, 1100l bins and either 10 or 8 cubic yard bins. However, these authorities use a much wider range of bank types, including single net cages and smaller wheelbins (used by 8% of authorities).

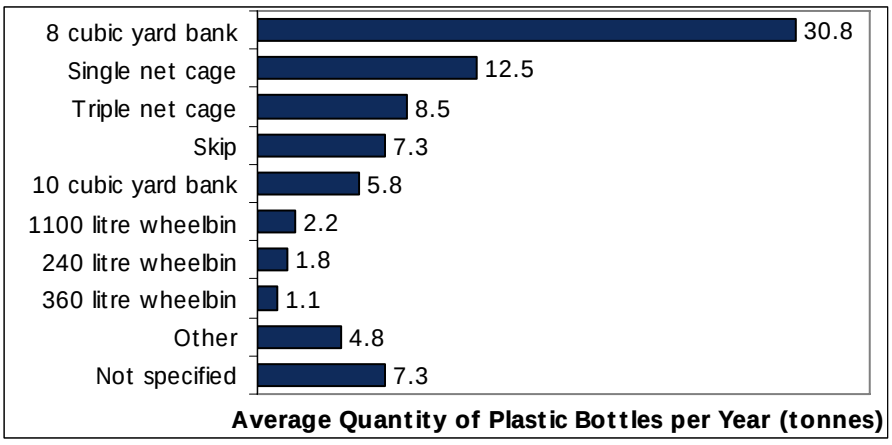
Figure 13 Main Bring Collection Container Type, by Local Authority



Performance by Container Type

Figure 14 below illustrates the average quantity of plastic bottles collected in each of the main bring container types in 2007 (e.g. 30.8 tonnes is the average quantity a typical 8 Cubic Yard Bank collects in a year). It is expected that the larger containers would have higher performance rates and this is shown to be true for banks, net cages and skips, all which generally have capacities above 3.5m^3, compared to wheelbins which typically have a capacity of 1.1 m^3 or less.

Figure 14 Average Quantity of Plastic Bottles Collected per Single Container Type, per Year



However, due to the large number of 1100 litre wheelbins in operation across the UK, it appears that the total quantity of plastic bottles collected through them far outweighs the total quantities collected through any other bring container type in 2007. As a comparison, approximately 7,961 tonnes (23%) of plastic bottles collected through bring sites were collected through 1100 litre Wheelbins in 2007, compared to the 3,850 tonnes that were collected through 8 Cubic Yard Banks.

3.2 Bring Collection Performance

Assessment Methodology

There are two key methods of assessing scheme performance; either through the quantity collected per bring site, or the average quantity collected per household in the capture radius. Using Survey data, it is not possible to assess the performance by capture radius, only by local authority area. In reality, the capture radius for bring schemes can be across local authority borders, with residents using a facility in a different local authority area because it is closer or more convenient.

Furthermore, making any assessment using the number of households could be misleading, as the quantities collected from an area by waste disposal authorities would need to be distributed through their constituent collection authorities.

For this reason the performance of bring plastic bottle collections has been assessed using the number of bring sites reported in relation to the quantities of collected bottles reported, by collection and unitary authorities.

Authorities with Highest Performing Sites

The highest performance levels for the collection of plastic bottles from unitary authority bring/ Household Waste Recycling Centre (HWRC) sites, if assed by quantity collected per site, per year, can be found in the authority areas with the fewest number of sites. This is a logical finding as in general, the fewer banks that are available, the wider the capture radius. Figure 15 below illustrates the minimum, maximum and average reported quantities of plastic bottles collected, by five different ranges of bank numbers:

Figure 15 Bring Collection Performance, by number of bring sites and quantities collected

Performance (kg/sites/pa)	< 10 Sites	10-19 Sites	20-29 Sites	30-39 Sites	> 40 Sites
Min	0.04	1.70	1.09	0.47	0.14
Max	42.82	47.14	10.73	8.12	5.31
Average (Mean)	10.59	10.59	4.02	3.11	1.57
No Datasets	30	20	5	13	15

As can be seen from the table, authorities with fewer than twenty bring sites reported the highest maximum tonnages per site and the highest average quantities collected per site.

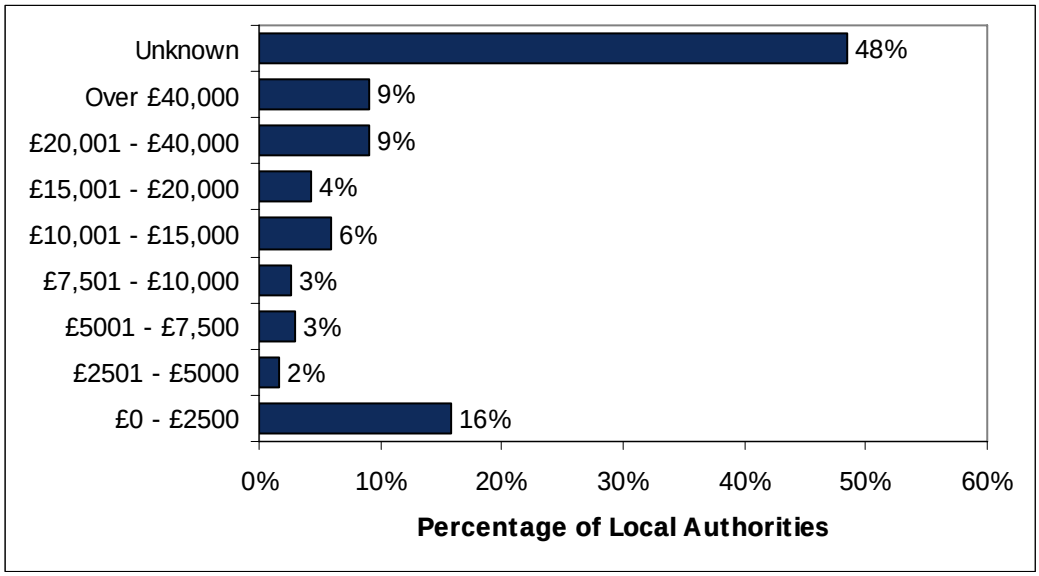
Assessing performance of bring schemes through total tonnage collected per year (and not on a kg/site/pa basis), also showed the authorities in the '10-19 Sites' category to have the highest minimum, maximum and average (mean) total quantities of plastic bottles collected. It should be noted however, that the datasets assessed vary in size and are not particularly large.

3.3 Expenditure

Largely Unknown

Almost half the Local Authority Recycling Officers who responded (233) were unable to indicate current levels of expenditure on their bring collection systems, after income from materials. Of those that did, the largest proportion (16%) spent less than £2,500 per year. The expenditure bands provided in the questionnaire are given below in Figure 16, along with the percentage of local authorities in each range.

Figure 16 Expenditure on Bring Schemes, by Percentage of Local Authorities



Expenditure & Quantity of Plastic Bottles

If actual responses (not including estimated data) are analysed, the number of datasets for each band were relatively small, with wide standard deviations. However, an indication of the average quantity of material collected per cost band, is given below.

Figure 17 Expenditure on Bring Schemes and Quantities of Plastic Bottles Collected[9]

Expenditure	Mean Tonnage per LA	Standard Deviation	Number of Datasets
£0 - £2500	99	169	18
£2501 - £5000	31	11	3
£5001 - £7,500	74	31	5
£10,001 - £15,000	95	121	6
£15,001 - £20,000	80	73	8
£20,001 - £40,000	172	194	17
Over £40,000	109	66	10

As can be seen there is no obvious correlation between expenditure and average (mean) quantity of plastic bottles collected by a local authority bring scheme.

Cost per Tonne

It is not possible from the data gathered in the 2008 Survey to calculate an accurate cost per tonne for plastic bottles collected through bring schemes. However, to provide some indication and comparison to the 2007 Survey an indicative figure can be derived:
Using £1,250 (the midpoint of the most common cost range of £0-£2,500 per annum) to

[9] *Due to a number of out-liers in the data, the standard deviations are unusually high and the mean will also be raised*

calculate an indicative cost per tonne for the relevant authorities, gives an average cost of £31 per tonne[10], after income from materials is deducted. Including income for materials would give an indicative cost of £121 - £171 per tonne at today's prices of £90 - £140 per tonne of mixed bottles[11].

3.4 Collection of Plastic Bottles 'Away From Home'

Away from Home Recycling

In order to capture and recycle plastic bottles that are commonly disposed of by consumers away from home, recycling banks are increasingly being located in busy areas, such as city centres and other busy urban locations. It was possible to identify 32 local authorities that collect either plastic bottles or aluminium cans away from home; of those 17 provided data on the quantity of plastic bottles collected and four on the quantity of aluminium cans collected. No further analysis was possible on the quantities collected of either material, due to unreliable data.

[10] In carrying out this calculation the four local authorities with annual tonnages of approximately 1tonne or less have been excluded.

[11] www.letsrecycle.com, 28th March 2008

4.0 Plastic Bottle Collection from Kerbside Schemes

Introduction

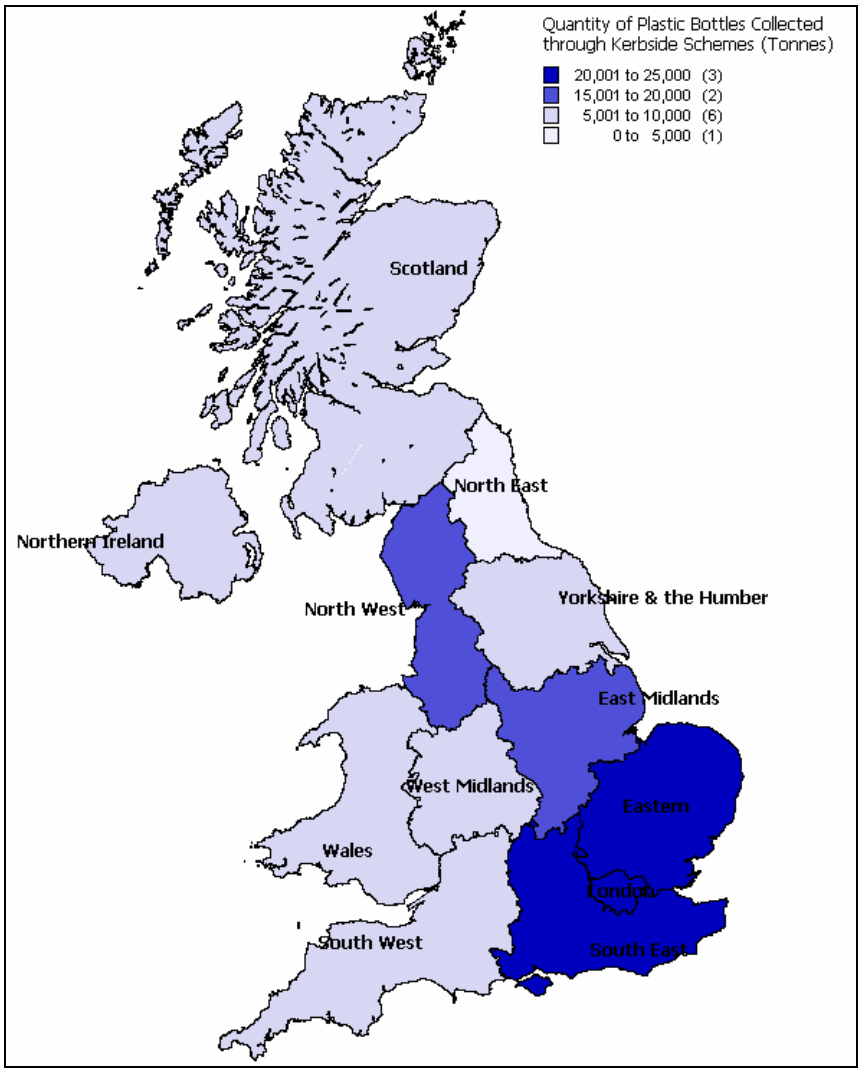
This section of the report provides further insight into local authority plastic bottle kerbside collection schemes, covering:

- Quantities of plastic bottles collected through kerbside schemes.
- Container types used.
- Frequency of kerbside collections.
- Relation to refuse collections.
- Local authorities without kerbside collections.

Estimated Quantities by Region

The estimated total quantity of plastic bottles collected through local authority kerbside collections in 2007 was approximately 147,405 tonnes, a 77% increase on 2006. The Region collecting the largest quantity (24,488 tonnes) was South East England, followed by Eastern England (20,368 tonnes) and London (20,074tonnes). The lowest quantity of plastic bottles collected was in the North East (4,170 tonnes).

Figure 18 UK Regional Map of the Quantities of Plastic Bottles Collected through Kerbside Schemes



4.1 Container Type

Most Commonly used Kerbside Container

Whether analysed by number of households, number of local authorities or quantity collected, boxes were reported to be the most commonly used container for collecting plastic bottles from kerbside. Approximately:

- 39% of UK households with plastic bottle kerbside collections are provided with boxes.
- 42% of Local Authorities operating kerbside collections supply boxes.
- 41% of plastic bottles collected from kerbside in the UK are collected in boxes (by weight).

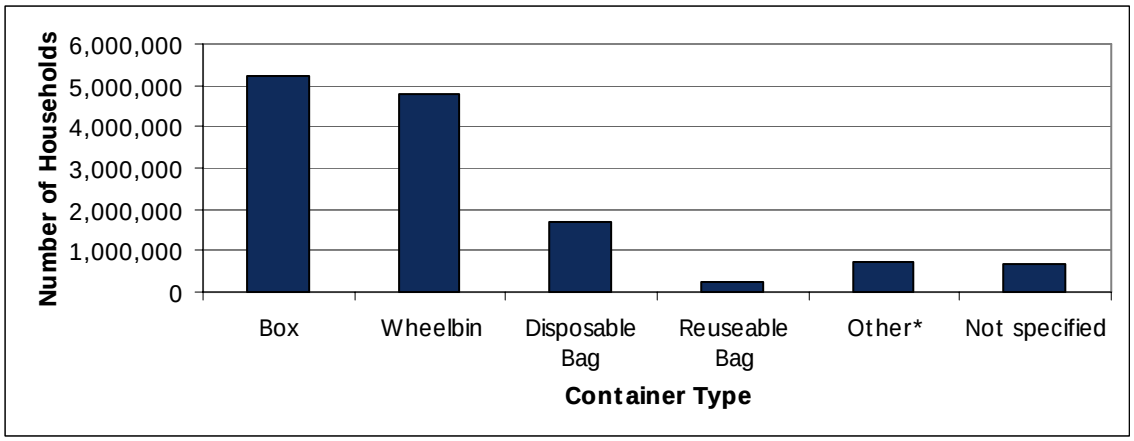
Typically, the boxes supplied to residents have a capacity of 55 litres.

Other Containers

Wheelbins are the second most frequently used containers after boxes, and are the container of choice for approximately 38% of local authorities with kerbside collections in the UK. Typically, they have a capacity of 140 or 240 litres, although a variety of capacities were reported. The range of kerbside collection containers used, relative to the number of households to which they are issued, is illustrated in Figure 19 below.

The third choice of container is the bag, which can either be a local authority provided 'reusable bag' or a 'disposable bag' belonging to a householder, such as a plastic carrier bag. In reality, and depending on the range of materials being collected at kerbside, most schemes use a mixture of boxes, bins and bags in a variety of colours and capacities.

Figure 19 Kerbside Containers used for Collecting Plastic Bottles



** 67% of 'Other' stated a combination of containers were used*

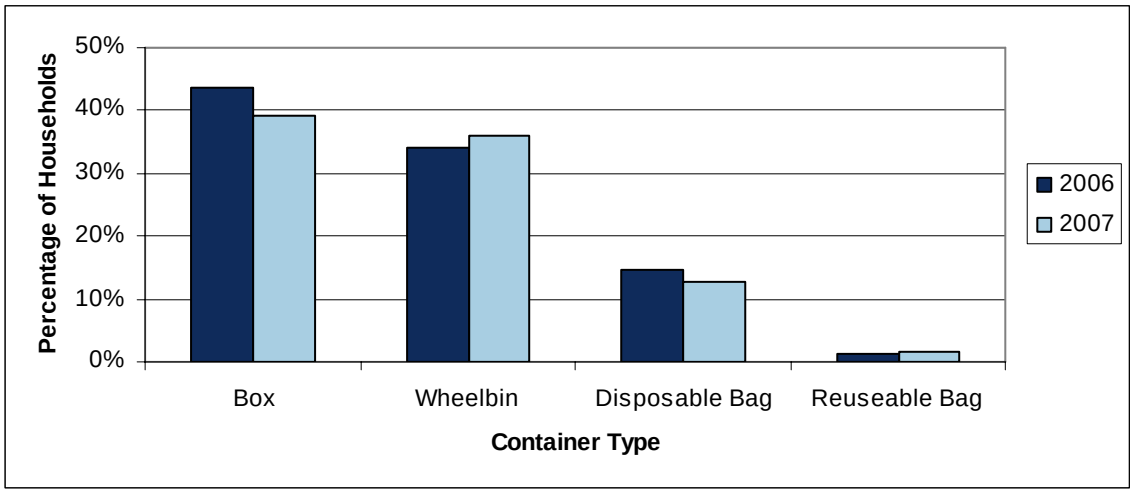
Differences between Countries

If the survey data is broken down by country, then it appears that the Scottish local authorities supply over half of their kerbside collection scheme residents with wheelbins and less than a quarter with boxes. On the contrary, no Welsh local authorities reported using wheelbins in their kerbside collections of plastic bottles.

Trends in Kerbside Containers

Historically, the box has been the most popular choice of container in which to collect plastic bottles from kerbside. However, as can be seen below, the proportion of households provided with a box has decreased marginally since 2006, whilst the proportion of households provided with wheelbins has slightly increased.

Figure 20 Comparison of Kerbside Containers used for Collecting Plastic Bottles 2006/2007



Performance by Container Type

The 2008 Survey data suggests that recovery rates of plastic bottles from kerbside collections has improved again this year. On average, local authorities collect approximately 9.3kg of plastic bottles, per household in their kerbside scheme, per year. This is an increase of 1.8kg per household per year from 2006 and an increase of 3.8kg per household per year from 2005.

This year, bags[12] showed a higher average performance rate (mean) for the collection of plastic bottles, than bins or boxes. The data has been analysed to give a 95% confidence interval and is given in the table below. This means, for example, that there is a 95% probability that a local authority's average kg/hh/pa figure for a box kerbside plastic bottle collection will sit within +/- 1.1kg of the 8.8kg/hh/pa mean.

Figure 21 Average (Mean) Kerbside Plastic Bottle Performance by container type

	Box	Wheelbin	Bag
Mean (kg/hh/pa)	8.8	8.9	12.9
Standard Deviation	6.6	7.4	8.2
Confidence Level	1.7	2.3	4.4

However, it should be noted that recovery rates can be influenced by a number of factors such as quantity of other materials collected, promotion and frequency of service, as well as by type and total capacity of collection containers.

4.2 Frequency of Collection

Fortnightly Collections

Whether looking at the number of households serviced, or the number of local authorities providing a service, fortnightly collections of plastic bottles as part of a kerbside scheme are by far the most common:

[12] *This data should be treated with caution and only taken as an indication of performance. The number of datasets available for analysis, particularly bags, were relatively small. The Number of datasets available for boxes, bins and bags were 60, 41 and 13 respectively.*

- **57% of households** receive a fortnightly collection (including those that alternate with residual waste collections).
- **50% of local authorities** provide a fortnightly collection (including those that alternate with residual waste collections).

Other Collection Frequencies

The frequency and container type of plastic bottle kerbside collections, in terms of the approximate number of households covered are shown in Figure 22 below. From this it can be seen that after fortnightly/alternate weekly collections, weekly collections were the most popular. Only six local authorities reported monthly plastic bottle collections as part of a kerbside collection (covering 738,218 households), with the majority of these supplying wheelbins.

Of the respondents that reported 'Other', (14 Local Authorities) one quarter were doing a combination of weekly/fortnightly/monthly collections, one quarter were either operating or moving to twice weekly collections, one quarter carried out collections every four or five weeks and the remainder did not specify their collection frequencies.

Figure 22 Frequency of Kerbside Collection, by Container Type and Number of Households

	Container					
Frequency	**Box**	**Wheelbin**	**Bag**	**Other**	**Not Specified**	**Total**
Weekly	2,499,173	114,176	891,539	94,983	0	**3,599,871**
Fortnightly	3,937,293	1,416,521	452,203	338,718	189,000	**6,333,735**
Alternate Weekly	1,186,584	2,037,856	147,097	187,000	90,000	**3,648,537**
Monthly	0	683,218	55,000	0	0	**738,218**
Other	131,185	444,000	64,000	165,330	0	**804,515**
Not Specified	662,900	543,409	433,537	0	613,987	**2,253,833**
Grand Total	**8,417,135**	**5,239,180**	**2,043,376**	**786,031**	**892,987**	**17,378,709**

Container Type

As can be seen from the table above, both boxes and wheelbins are most frequently collected fortnightly; boxes independently of residual waste (47%) and wheelbins alternate weekly (39%). However, bags are most commonly collected weekly (44%).

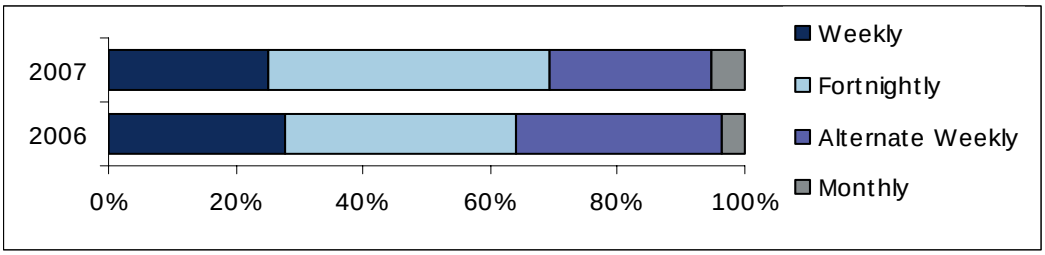
The pattern is similar if the data is analysed by number of local authorities instead of number of households, except that, of the percentage of local authorities collecting wheelbins fortnightly, only 23% reported these collections were alternate weekly with residual waste, compared with 43% which declared them to be independent.

2006 Comparison

In analysing only the survey responses that specified either a weekly, fortnightly or monthly collection, it appears that the proportion of weekly collections has decreased slightly (-3%), whilst monthly has remained almost the same (+1%).

Fortnightly collections (including alternate weekly collections) increased by approximately 2%.

Figure 23 Frequency of Kerbside Collection, 2006/2007 Comparison



Performance by Frequency of Collection

When considering the mean annual quantity collected from a typical household (as per the 2007 Survey), alternate weekly collections appear to have the highest average performance level, closely followed by weekly collections. Fortnightly collections that are independent of residual waste collections show the poorest performance, as shown in Figure 24 below.

Figure 24 Average (Mean) Kerbside Plastic Bottle Performance by Frequency of Collection

	Weekly	Fortnightly	Alternate Weekly	Monthly
Mean (kg/hh/pa)	8.07	4.13	8.58	7.28
Standard Deviation	6.58	5.09	8.82	2.48
Confidence Level	2.09	1.27	2.58	1.98
Number of datasets	38	62	45	6

The data has been analysed to give a 95% confidence interval; this means, for example, that there is a 95% probability that a local authority's average kg/hh/pa figure for a weekly kerbside plastic bottle collection will sit within +/- 2.09kg of the 8..07kg/hh/pa mean.

4.3 Relationship to Refuse Collection

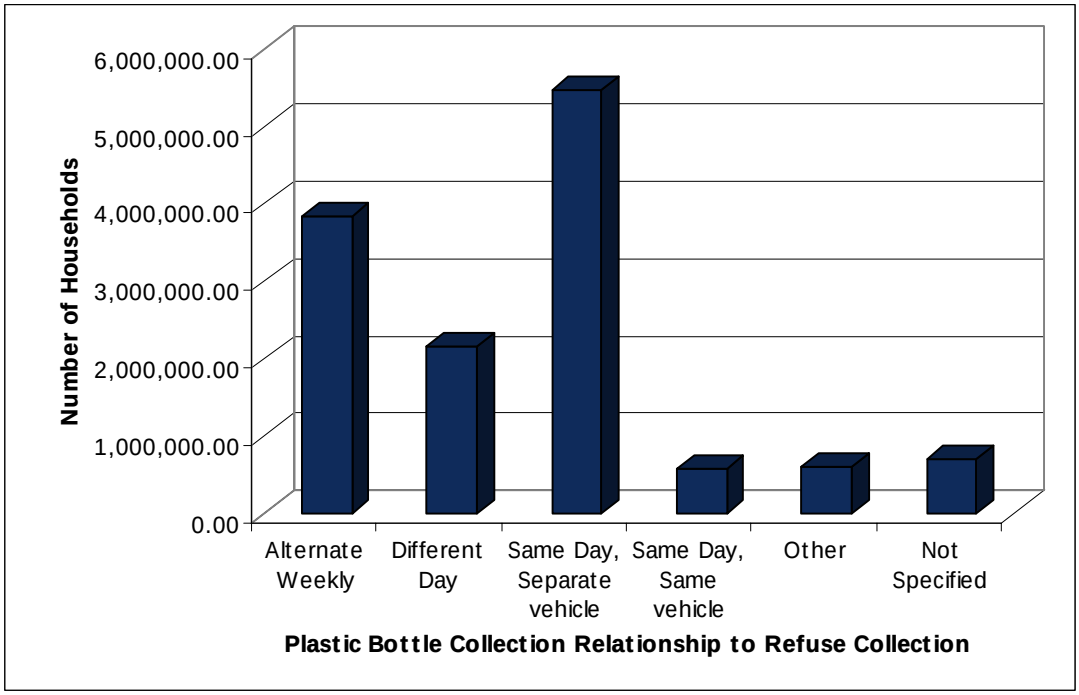
Same Day Collections

Approximately 45% of local authorities collect plastic bottles from kerbside on the same day as residual waste; this applies to approximately 6m UK households. The vast majority (90%) of same day collections use separate vehicles for plastic bottles (and other recyclables) and residual waste.

Alternate Weekly Collections

The second most common system is the alternate weekly collection of residual waste and dry recyclate, including plastic bottles. This was reported to occur in 100 local authority areas from the 380 local authorities that responded..

Figure 25 Kerbside Collection Scheme Frequencies, by Number of Households Covered



2006 Comparison

There has been only a minimal change in the relationship of kerbside collections to residual refuse collections since 2006, in that the proportion of Alternate Weekly and Different Day collections have reduced by a few percent and the proportion of Same Day, Separate Vehicle collections has increased by a few percent.

Performance by Relationship with Residual Refuse Collection

Alternate weekly collections appear to have the highest average performance level, 11.3kg/hh/pa, when considering the mean quantity collected from a typical household every year,as shown in Figure 26 below. In 2006 alternate weekly collections were also the best performers, but by a much greater margin; same and different day collections have seen greater increases in the mean quantity collected per household per year of approximately 20-30%.

Figure 26 Kerbside Collection Performance by Relationship with Residual Refuse Collection

	Alternate Weekly	Same day separate vehicle	Different Day
Mean (kg/hh/pa)	11.28	9.55	7.60
Standard Deviation	8.02	4.32	10.70
95% Confidence Interval	2.52	1.12	4.69
Number of datasets	39	57	20

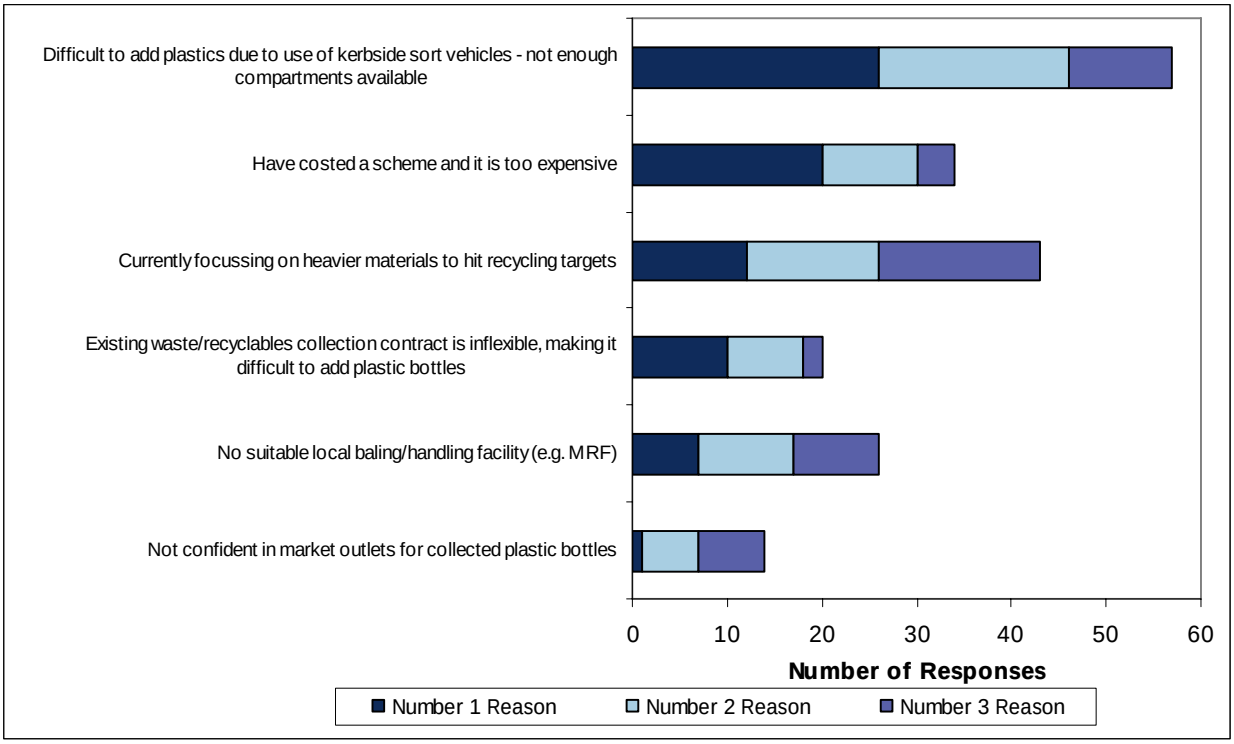
4.4 Local Authorities without Kerbside Collections of Plastic Bottles

Inhibiting Factors

Of those local authorities which do not operate kerbside collections of plastic bottles, 76 offered some insight in to the reasons they do not. Recycling Officers were provided with a list of six options from which they selected their top three factors that were inhibiting them from establishing kerbside collection schemes for plastic bottles.

The reason selected the highest number of times and classed as the 'Number 1 Reason' for the largest number of authorities, was the lack of spare compartments in their kerbside collection vehicles. Cost was the second 'Number 1 Reason' although 'Currently focussing on heavier materials to hit recycling targets' received a higher number of combined ratings. Figure 27 below summarises and prioritises the responses.

Figure 27 Reasons Local Authorities have not Implemented Plastic Bottle Kerbside Collections



5.0 Other Household Plastic Collections

Introduction

In addition to the plastic bottle collections offered by local authorities, a growing number are now able to offer collections of other household plastics, such as carrier bags, packaging film, tubs & trays, plant pots and expanded polystyrene. This section of the report details:

- Current collection activity amongst local authorities.
- Primary markets.
- Local authorities' perceptions of 'other plastic' collections.

5.1 Current Collection Activity

Types of Other Plastics Collected

From the survey results, 108 local authorities indicated that they offered some form of 'other plastics' collection[13], a 32% increase on 2006 (82 local authorities). However WRAP believes that this response reflects that bottle collections often pull in "other plastics" and that it therefore may overstate the number of authorities that are actively promoting the collection of other non-bottle plastics. The table below details the numbers of local authorities that confirmed collecting the various plastic types listed in the questionnaire; carrier bags and food tubs & trays are the most commonly collected other household plastics, with polystyrene only being collected by one authority. The numbers of collections operating in the UK have increased for all types of plastics, other than expanded polystyrene (EPS).

Figure 28 Number of Local Authorities Targeting 'Other Plastics' for Collection

	Carrier Bags		Packaging Films		Food tubs and trays		EPS		Other Dense Plastic		Plant Pots	
	No. of LAs	% of LAs	No. of LAs	% of LAs	No. of LAs	% of LAs	No. of LAs	% of LAs	No. of LAs	% of LAs	No. of LAs	% of LAs
Bring Schemes	32	7%	14	3%	23	5%	0	0%	11	2%	11	2%
Kerbside Schemes	30	6%	10	2%	32	7%	1	0%	3	1%	13	3%
Total	62	13%	24	5%	55	12%	1	0%	14	3%	24	5%
Increase on 2006	68%		41%		8%		same		75%		167%	

Quantities Collected

Only 21 authorities were able to provide data on the quantities of other plastics collected; these ranged from 1 to 2,562 tonnes per year. The total reported quantity of other plastics collected was 10,857 tonnes; the vast majority of this (84%) was collected through kerbside collection schemes. This is illustrated in Figure 29 below.

[13] *Local Authorities providing data on 'other plastics' such as quantities collected through bring or kerbside schemes, number of bring or CA sites, number of households, types targeted, etc were classified as one of the 108 with an 'other plastics' collection scheme. Authorities that only 'characterised' or reported problems with 'other plastics' schemes were excluded from the 108, as it appears they may have been commenting on their plastic bottle collections and not on an 'other plastics' collection.*

Figure 29 Quantity of 'Other Plastics' Collected, Bring Sites and Household Coverage

	Quantity Collected (tonnes)	Number of Sites	Number of Households
Bring Schemes	1,777	1,436	n/a
Kerbside Schemes	9,079	n/a	1,626,177
Total	**10,857**	**1,436**	**1,626,177**

By Country

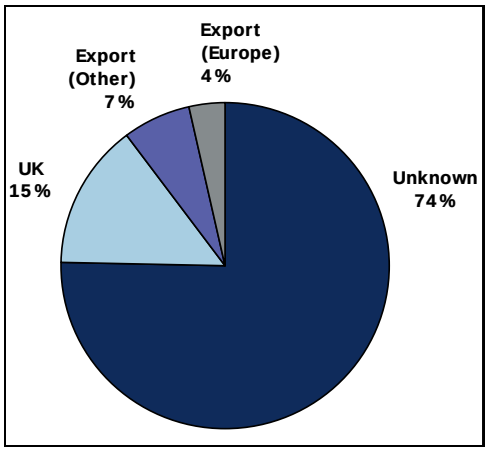
Of the 108 local authorities identified, 83 (78%) were English, 13 (12%) were Welsh, seven (7%) were Scottish and four (4%) were based in Northern Ireland.

5.2 Primary Market for Other Household Plastics

Domestic Vs Export Market

Local Authorities collecting 'other' household plastics were asked to provide information on the primary market for this recyclate. The vast majority of Recycling Officers reported that they did not know; 15% believed it remained in the UK and the remaining 11% believed it was exported.

Figure 30 Primary Market for Other Household Plastics

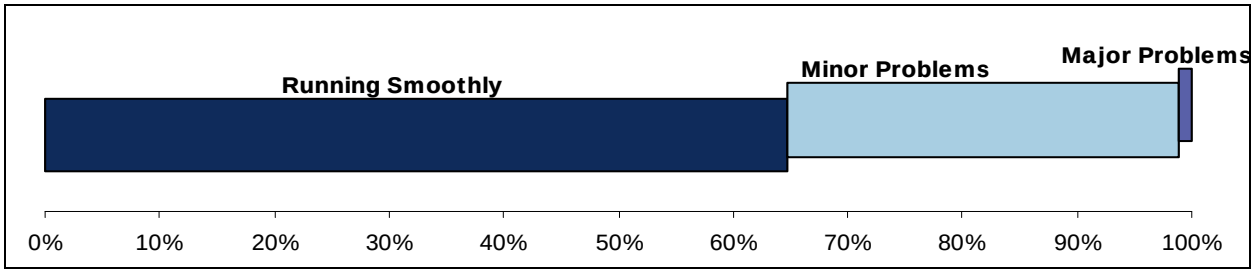


5.3 Local Authority Perceptions of 'Other Plastics' Collections

Operations

When asked to outline the how well their collection scheme for 'other' household plastics was running, over half of respondents (65%) indicated a smoothly running service, as shown in the figure below, approximately one-third (34%) reported there were minor problems and only one authority reported major problems. No Recycling Officers stated they wished to withdraw the service.

Figure 31 How Well Collection Schemes for Other Household Plastics Operate



Service Problems

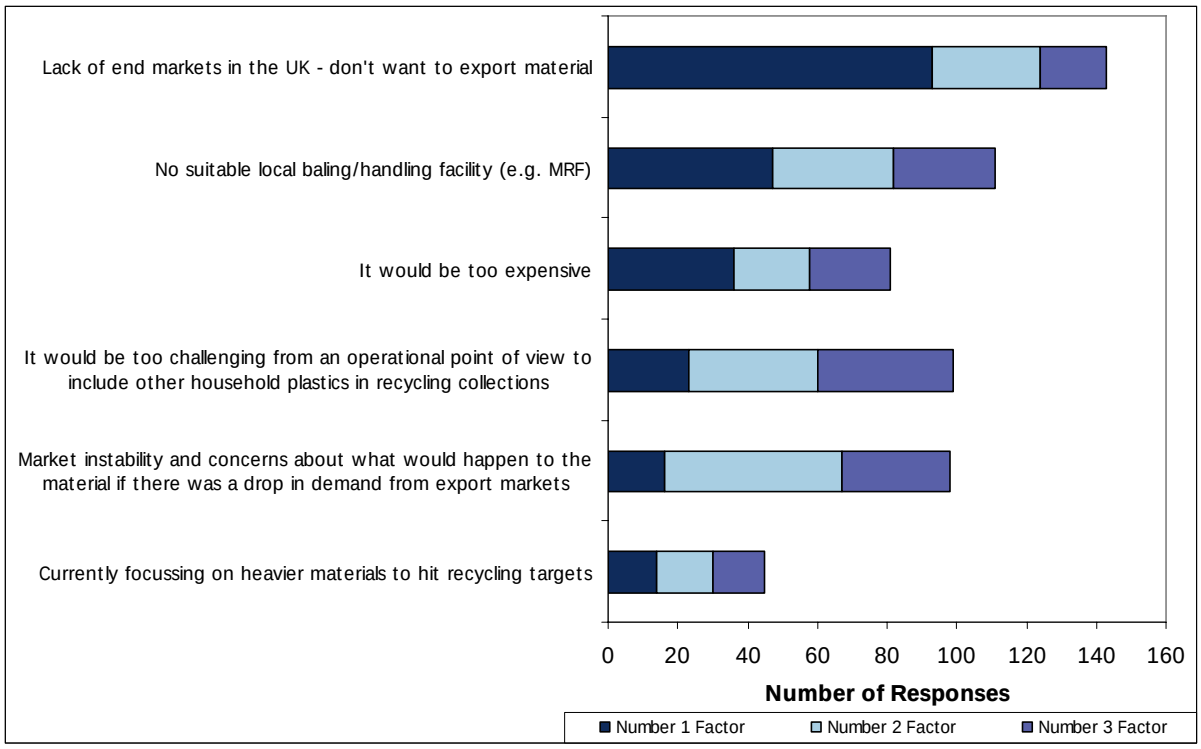
From the list of concerns provided in the questionnaire, respondents indicated the following:

- Operational Aspects (37%).
- Finding a market (20%).
- Material Quality (16%).
- Market Reliability (12%).
- Scheme too expensive (4%).
- Other (10%).

Factors Preventing 'Other Plastics' Collection Schemes

The figure below illustrates the key reasons local authorities have chosen not to implement a collection scheme for 'other' household plastics. Recycling Officers were asked to select their top three off-putting factors. Of the 229 Officers answering this question, the largest proportion (25%) was concerned with the lack of UK markets, followed by the lack of a suitable local baling/handling facility. The chart below illustrates the importance of the remaining factors.

Figure 32 Factors Preventing a Collection Scheme for Other Household Plastics



6.0 Planned Developments & Potential for Plastics Collections

Introduction

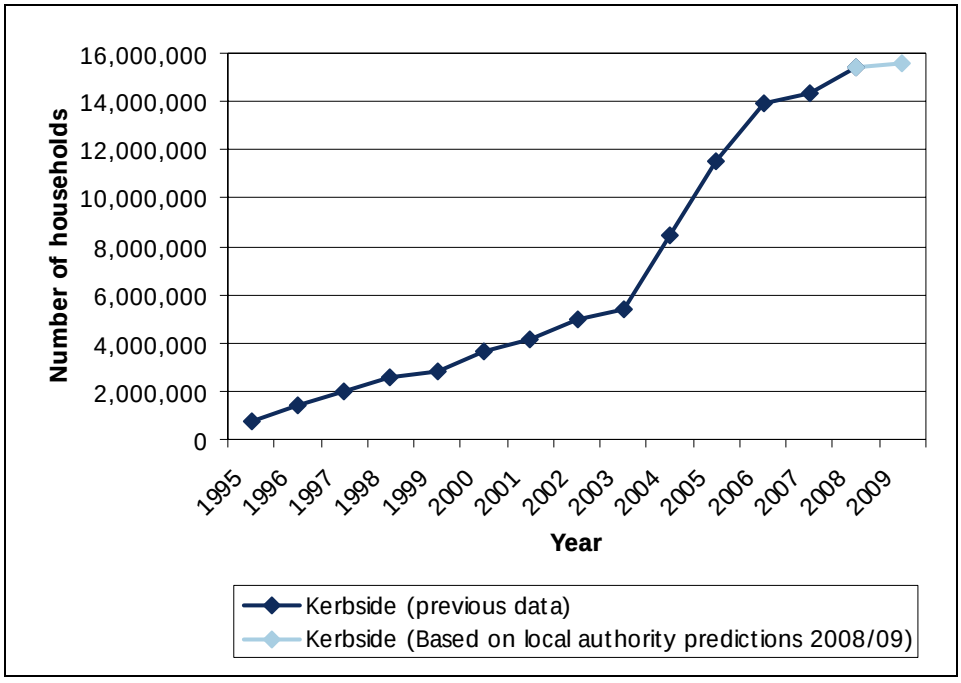
The potential growth of the UK plastic bottle recycling infrastructure can be assessed through analysing the reported planned developments of Recycling Managers. These can be used to analyse growth within both bring and kerbside systems as displayed in the two graphs below. The continual year on year growth of plastic recycling schemes has been strengthened by the availability of increased Government funding for recycling, improved technologies and statutory or national targets.

Kerbside Collections

Despite the large increase in the total quantity of plastic bottles collected through kerbside schemes in the UK in 2007, according to the data analysed in this year's Survey the number of households in the UK receiving a plastic bottle kerbside collection has only increased by 3%, bringing the total to 14.4 million households.

Figure 33 below illustrates the growth of kerbside collections since 1995 and the estimated growth potential for 2008 and 2009. The figures for 2008 and 2009 are the accumulative total of current, and where supplied, forecast household numbers on kerbside plastic bottle collections as reported by local authority Recycling Officers in the 2008 Survey.

Figure 33 UK Plastic Bottle Kerbside Scheme Coverage over Time, Including Planned Growth

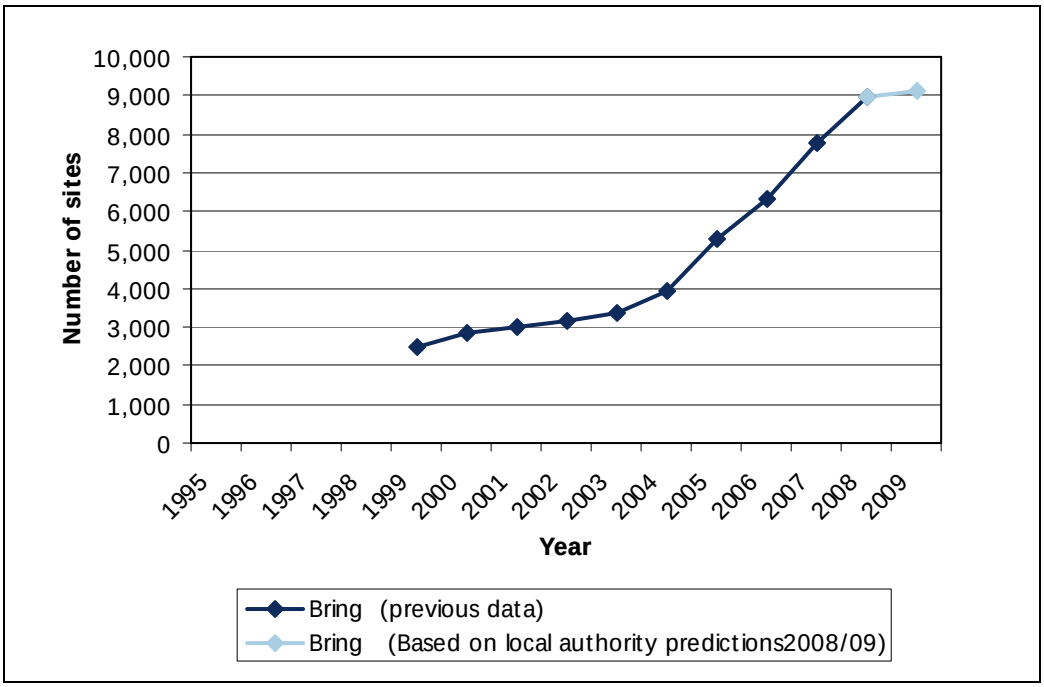


Bring Collections

In 2007 the number of bring sites has risen to 7,750 sites across the UK, a 22% increase since the end of 2006. The plans again suggest a continued rise in bring facilities over the next year as new sites and schemes are developed, with a total of approximately 9,142 sites expected to be operational by the end of 2009.

Figure 34 below illustrates the growth of bring scheme collections since 1999 and the estimated growth potential for 2008 and 2009. The figures for 2008 and 2009 are the accumulative total of current, and where supplied, forecast plastic bottle bring site numbers as reported by local authority Recycling Officers in the 2008 Survey.

Figure 34 UK Plastic Bottle Bring Scheme Coverage over Time, Including Planned Growth



7.0 Plastic Bottle Recycling

Introduction

This section of the report takes a look at the next step downstream after the collection of the plastic bottles by Local Authorities. In particular it has been possible to establish an indicative profile of recovered plastic bottles; i.e. the different quantities of Polyethylene terephthalate (PET) and High-density polyethylene (HDPE) that tend to be collected and the typical level of contamination.

The data and information used to produce this section have come from sample plastic bottle collections received at the Valpak Northwest Materials Recovery Facility (MRF) in Preston, between July and December 2007[14], before any processing occurred. As the material received at the MRF comes predominantly from waste management companies (who are responsible for local authority collections) it was not possible to breakdown the data by authority type or collection type, i.e. whether material had been sourced from a CA site or collected solely through a kerbside scheme. However, where specific authorities were known they were checked against 2008 Survey data to confirm that a mix of bring and kerbside collections were incorporated. The samples used for this exercise were taken purely from mixed bottle collections.

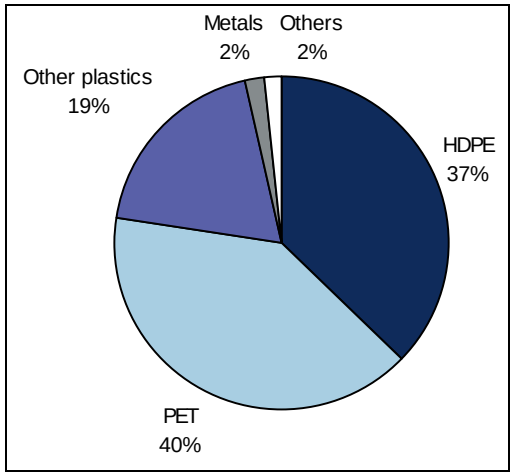
The profile of the plastic bottle bales subsequently forwarded to reprocessors is considerably different from the profile of material received at the MRF, as a result of the sortation processes undertaken.

7.1 Typical Profile of Plastic Bottle Collections

Material Types

Local authorities tend to target 'mixed bottles' in their plastic bottle collection schemes; the bottles collected are most commonly made from HDPE or PET and are the bottle type currently of highest value to local authorities. However, due to the nature of household collections it is rare to receive just the materials requested, due to human error and misunderstanding. Figure 35 below illustrates the typical profile of 'plastic bottle collections' in the UK and whilst the majority of material received (77%) is HDPE and PET bottles, there is approximately 23% that could be classified as contamination[15].

Figure 35 National Profile of Typical Plastic Bottle Collections, by Material



[14] It should be noted that whilst the analysis included samples of materials collected in most regions of the UK, due to the location of the MRF there was a considerable bias towards material collected in the North West of England.

[15] Where plastic bottles are collected with cans and/or other materials, these should not be considered 'contaminants'. However, for the purpose of this exercise only mixed bottle collections were sampled and mapped.

Contamination

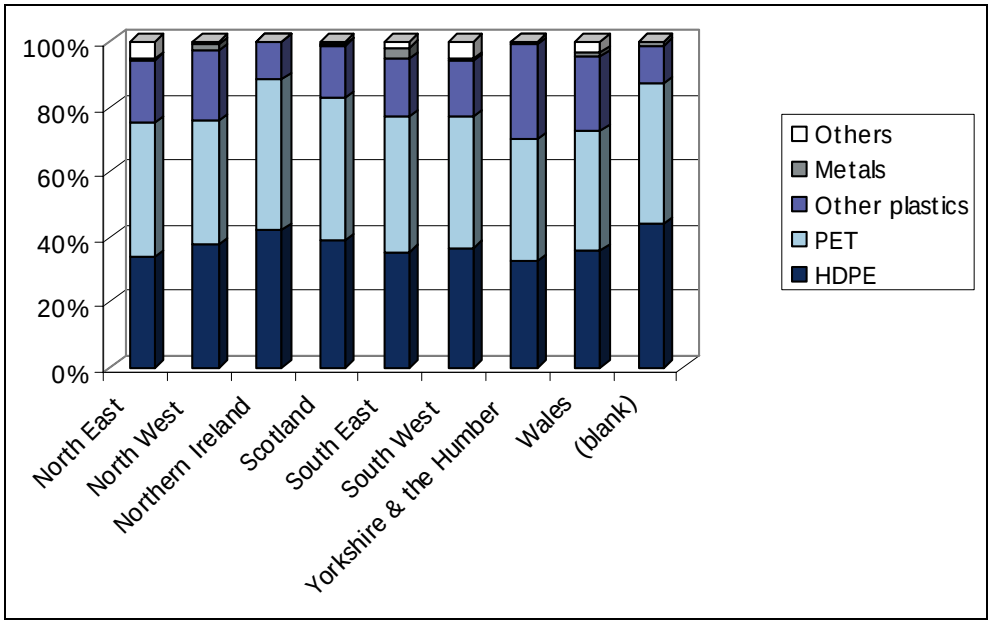
Contaminants are not necessarily waste materials; increasingly, they can themselves be recycled separately. In significant quantities, metal cans have a considerable value and other plastics will increasingly be recycled with emerging technologies, markets and demand.

It should be noted that in reality, a wide variation in the level of contamination of plastic bottle collections exists. The above, whilst representative of six months worth of data is only indicative. Depending on collection and handling, Recoup[16] have seen between 2% and 25% contamination within bottle bales; discussions with some reprocessors indicate even higher levels of contamination in certain circumstances.

Regional Variations

The sample material was analysed according to the region of the UK in which it was collected. The regional variations in profile are shown in the chart below and can be seen to be relatively minor; in terms of levels of contamination, Northern Ireland appears to have the lowest with less than 11% and Yorkshire and Humber the highest, with approximately 30%.

Figure 36 Regional Profile of Typical Plastic Bottle Collections, by Material



This data has been used to map the total quantities of plastic bottles recycled (i.e. excluding any contamination) by region of the UK and is illustrated in Figure 39 below.

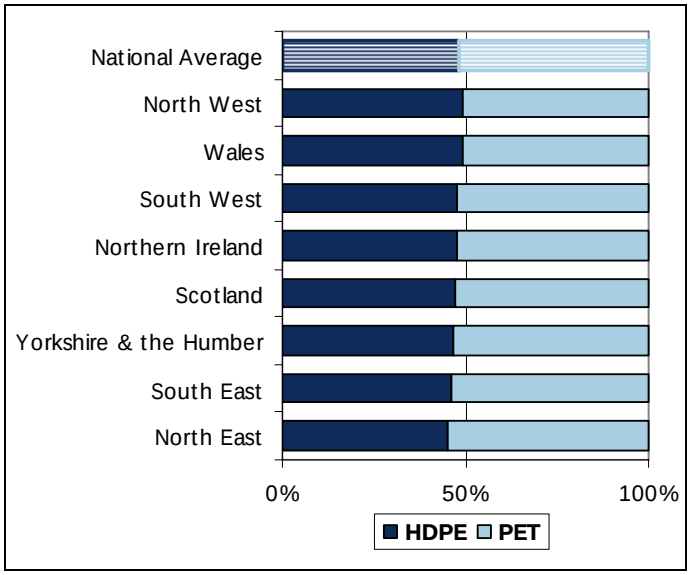
7.2 Ratio of HDPE to PET Bottles

HDPE & PET Bottles

Taking just the HDPE and PET bottles, a further analysis was carried out to establish the typical split of the two bottle types. The average overall (National) split of bottles was found to be 48% HDPE and 52% PET. As can be seen in Figure 37 below, this split is very similar across the different regions of the UK, with PET plastic bottles remaining slightly dominant in each region.

[16] *www.recoup.org*

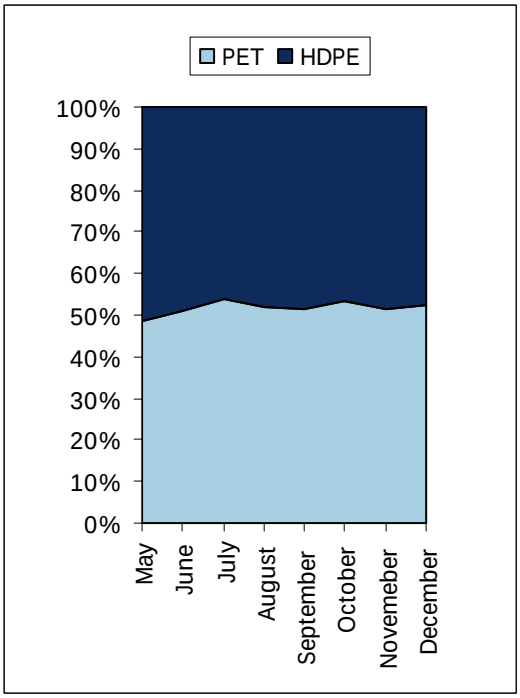
Figure 37 Typical Split of Collected HDPE & Pet Bottles, by Region of the UK



Seasonality

The data was also analysed to establish any trends in the split of HDPE and PET in relation to the time of year; for this a wider sample of data was used, to include the months of May and June. Some variation was anticipated due to a tendency of higher sales of soft drinks (PET bottles) in the warmer summer months. However, this was not evident from the data, possibly due to the UK suffering the wettest summer on record and the soft drinks industry experiencing reduced growth in sales[17]. Figure 38 below illustrates the minor variations in split between bottle types.

Figure 38 Minor Seasonal Variation of the PET and HDPE Bottle Mix



[17] *http://www.talkingretail.com/top-100-grocery-brands/8795/Weather-hits-soft-drinks-but-s.ehtml*

7.3 UK Regional Recycling Tonnages

Mapped Recycling Tonnages

In order to gain some idea of the actual quantities of plastic bottle recycling occurring across the UK, the regional profiles[18] for plastic collections illustrated in Figure 37 above have been mapped onto the estimated regional quantities of plastic bottles collected (from the Survey).

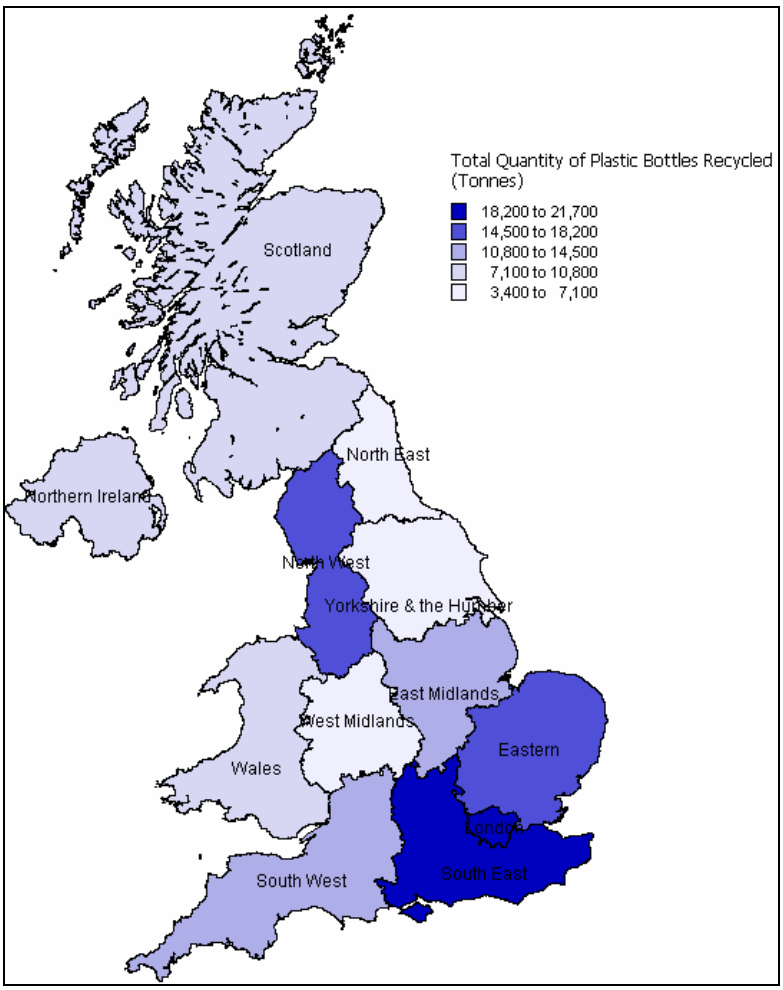
This exercise has produced three maps which illustrate a more realistic picture of the quantities of plastic bottles recycled from local authority collections; that is to say the quantities of HDPE and PET bottles that are collected by local authorities, excluding any contaminants, cans or other plastics. The proportions of HDPE and PET used are derived from the sampling of material received at Valpak Northwest's MRF between July and December 2007. The three Maps are:

- UK Regional Map of the Total Quantities of Plastic Bottles Recycled (Figure 39).
- UK Regional Map of the Quantities of HDPE Bottles Recycled (Figure 40).
- UK Regional Map of the Quantities of PET Bottles Recycled (Figure 41).

Total Quantity of Plastic Bottles

The South East of England shows the highest levels of plastic bottle recycling according to the 2008 Survey data and Valpak North West sample analysis, with approximately 21,612 tonnes. London, Eastern and North West were the next highest achievers, with the North East and West Midlands showing the lowest levels (3,436 tonnes and 4,982 tonnes respectively).

Figure 39 UK Regional Map of the Total Quantities of Plastic Bottles Recycled



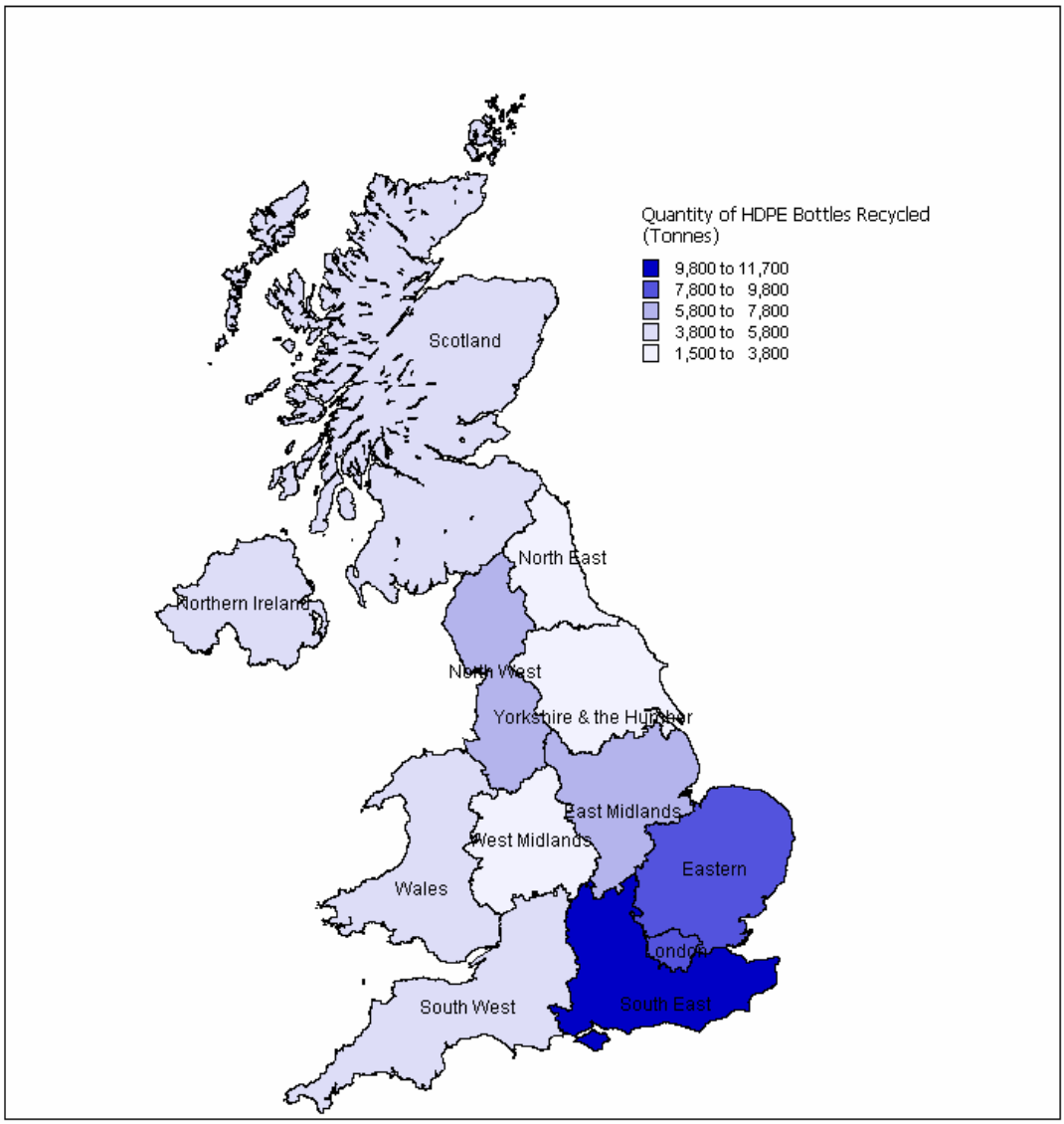
[18] *Regional data was not available for Eastern, East &West Midlands or London, therefore national averages were used*

Compared to the maps within Section 2 of this Report, which illustrate the quantities of plastic bottles collected, it can be seen that the distribution of quantities appears very similar. However, in considering the regions with the lowest levels of contamination in their plastic bottle collections, Northern Ireland (11%), Scotland (18%) and North East England (22%), it becomes apparent that due to the large quantities of plastic bottles collected, the small differences in levels of contamination are not notable enough to vary the appearance of the maps.

Quantities of HDPE Bottles

The quantities of HDPE bottles collected across the UK varies from approximately 1,500 tonnes in Yorkshire & Humber, through to 10,000 tonnes in the South East, as illustrated in Figure 40 below.

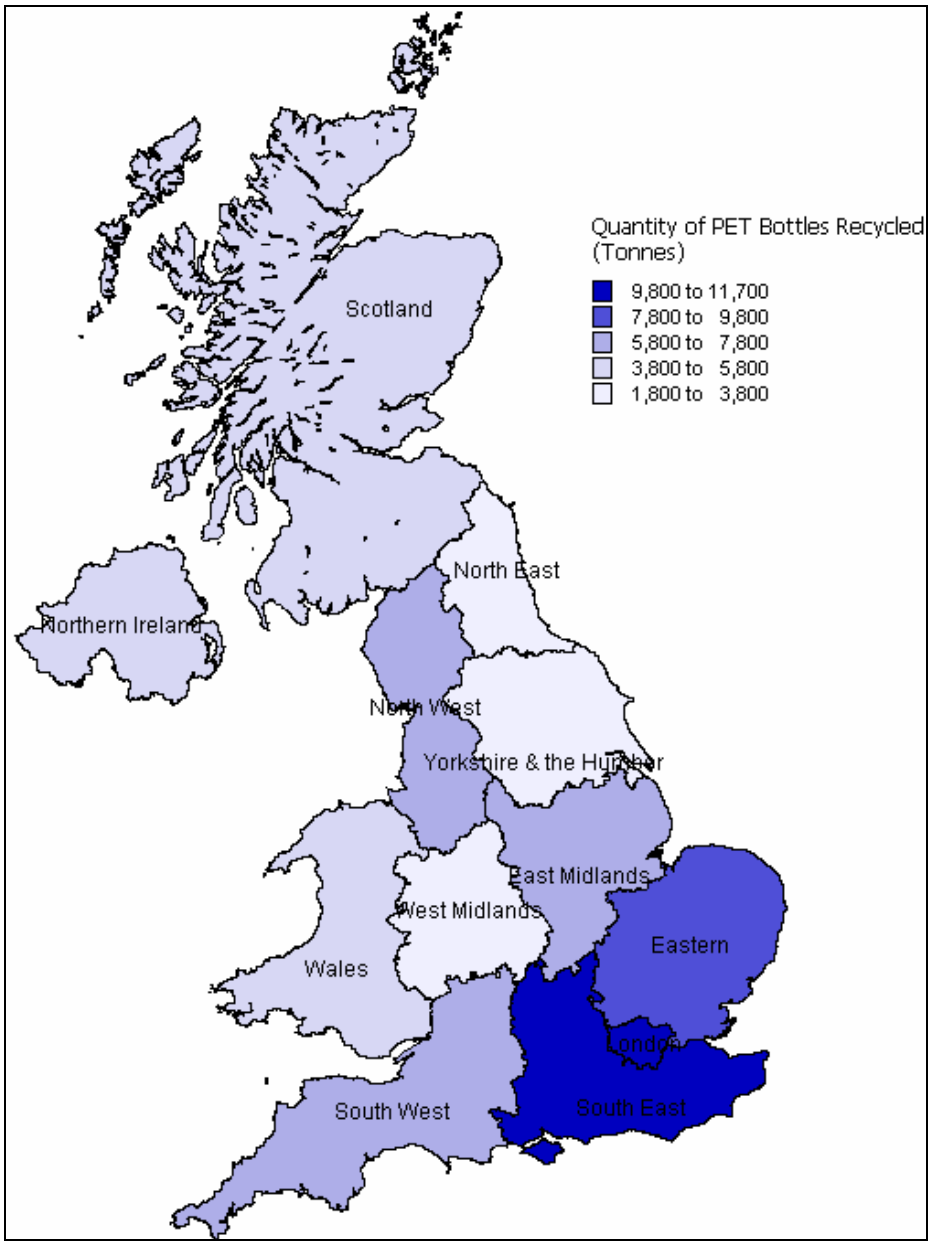
Figure 40 UK Regional Map of the Quantities of HDPE Bottles Recycled



Quantities of PET Bottles

Similarly to HDPE bottles, the quantities of PET bottles collected across the UK varies from approximately 1,900 tonnes in Yorkshire & Humber, through to 11,600 tonnes in the South East, as illustrated in Figure 41 below.

Figure 41 UK Regional Map of the Quantities of PET Bottles Recycled



8.0 Plastic Bottle Markets

Introduction

The main focus of this Report, and of the preceding Survey, was the collection and recycling of plastic bottles; notably HDPE and PET bottles. These are currently the main type and form of plastics to be collected by local authorities, due to the more developed markets that exist for their reprocessing in the UK, or their export for reprocessing elsewhere.

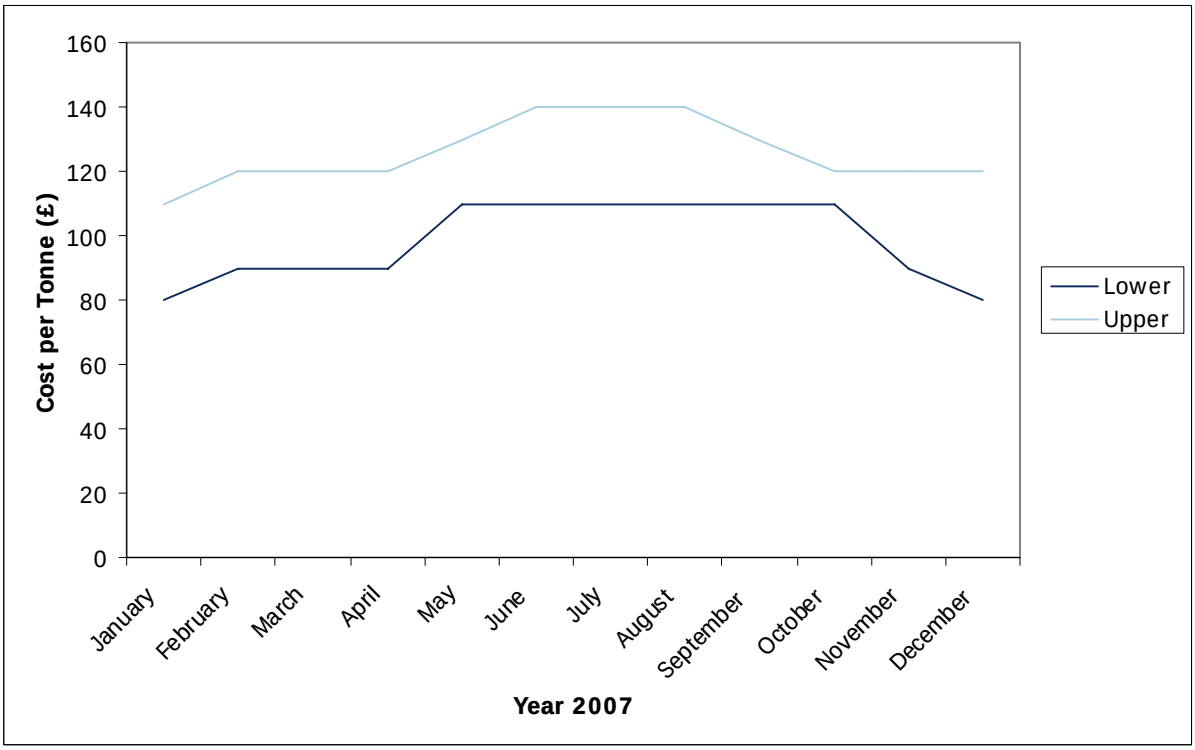
Material Preparation

In order to achieve the maximum value for collected plastic bottles, levels of contamination need to be minimised and the material needs to be baled for ease of handling. Sortation and baling of plastic bottles may happen at a MRF belonging to a local authority, or at a private MRF belonging to a waste management company. For an insight into the material mix of collected plastic bottles, please see Section 7 of this report, which details the results of the analysis of plastic bottles received at Valpak Northwest's MRF over a six-month period.

Cost per Tonne

The graph below illustrates the fluctuation of the cost per tonne of mixed plastic bottles sold in the UK in 2007. As can be seen, the costs started and ended on this year at approximately the same level; approximately £80 to £110 per tonne and peaked at approximately £100 to £140 per tonne over the summer.

Figure 42 Graph of the approximate Cost per Tonne for Mixed Plastic Bottles (2007)[19]



[19] *Data from http://www.letsrecycle.com/prices/plasticsArchive2007.jsp*

8.1 Survey Findings: Plastic Bottle Market

Introduction

There are a number of options for local authorities selling collected plastic bottles. This can involve a number of organisations, including: waste management companies; third party agents and the reprocessors themselves.

Contracts

Of the 109 respondents who were aware of how their plastic sales were managed, 41 (38%) indicated that they had a contract for their plastic bottles and 68 (62%) stated that they use spot markets. This is similar to the responses given in 2006, except for a slight increase in the percentage of local authorities with contracts (41%).

Where contracts were in place, their duration varied:

- 6 months – 1 year (5 responses).
- 2 – 3 years (5 responses).
- 5 years + (3 responses).

End Market Sourcing

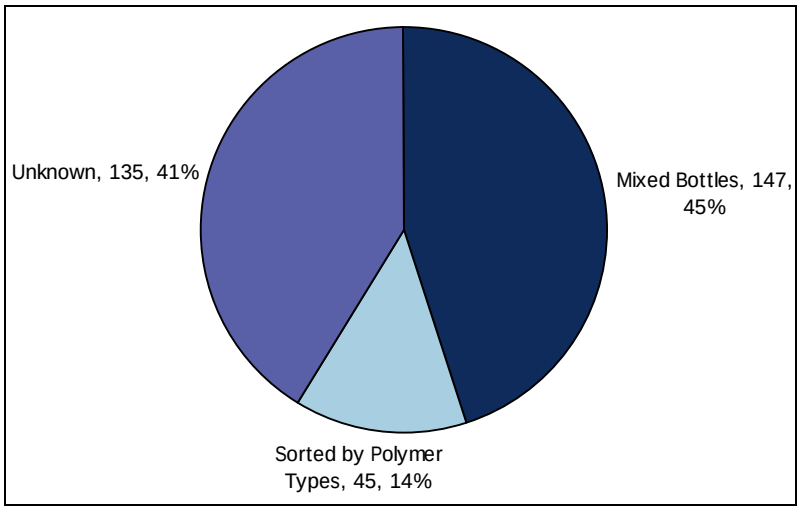
When asked who decides where the collected plastic bottles are sold, almost three-quarters (72%) of local authorities said it was their contractors. However, 15% stated that they decided themselves and the remainder did not know. In 2006, only 62% of local authorities left the sourcing of end markets to their contractors and 17% retained responsibility.

Plastic Bottle Sales

Almost half (47%) of local authorities do not see the revenue from their plastic bottle collections, as the sales revenue is received by their contractors. Approximately 17% of local authorities stated that they shared the revenue with their contractors and 15% received the revenue from material sales directly.

As can be seen in the chart below, of the respondents who knew in which format they sold their plastic bottles, the majority stated that they were mixed bottles.

Figure 43 Format of Plastic Bottles; Mixed and Sorted



Primary Market

In 2007, 25% of local authorities stated that the plastic bottles they collect are sold to a UK market, compared with 8% that export outside the EU and 3% that export within the EU. This is a similar profile to plastic bottle sales reported in the 2007 Survey.

The survey data revealed that 41% of local authorities reported that they did not know where their plastic bottles were being sold. Where Local Authorities operate in-house collections they are required to keep a record of where the material is sent under the Duty of Care Regulations[20]. Where a third party is contracted to collect dry recyclables they, not the local authority, are responsible for keeping a record of the collected material. This may explain why some of the 41% of local authorities were not aware where the material was being sold.

[20] *www.netregs.gov.uk*

9.0 Hot Topics

Introduction

There are currently a number of 'hot topics' associated with plastics and recycling in general. With increasing recycling and landfill diversion targets, more local authorities are investigating the potential of introducing new technologies to improve efficiency in the way waste is managed. This in turn has the potential to affect the way in which plastic bottles and other household plastics are handled. As part of this Survey, local authorities were asked what plans they have, if any, for introducing new technologies for waste management and recycling.

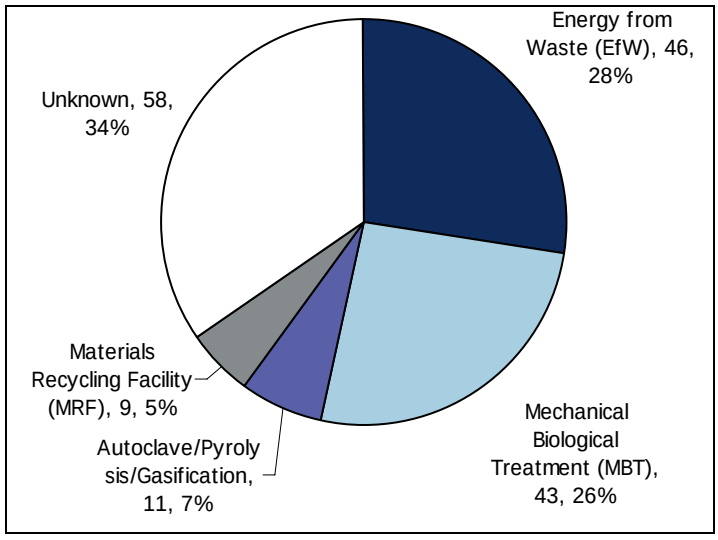
Other 'hot topics' include bioplastics and other plastics collection schemes local authorities may be involved in, such as agricultural waste plastics.

9.1 New Technologies

Local Authority Plans

Local Authorities were asked if they were planning to introduce any new waste technologies over the next 10 years, for which 178 indicated that they were. Figure 44 below shows that 34% of respondents were unsure of what technologies were to be introduced either because the WDA or waste management contractor has this responsibility, or because new technology options were under investigation. For those that could identify specific technologies, Energy for Waste (EFW) (46 LAs) and Mechanical Biological Treatment (MBT) plants (43 LAs) were the most frequently cited options; more than twice as many local authorities as in 2006.

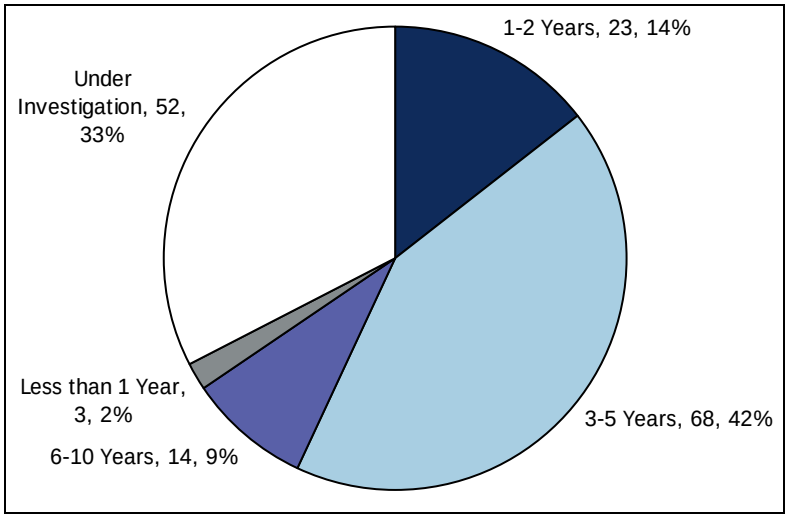
Figure 44 New Technologies being introduced or Investigated by Local Authorities



Timescales

Figure 45 below shows that over half of the planned developments are intended to be implemented over the next 5 years, although nearly one third of respondents were unsure of their implementation timescales. In comparison with 2007 Survey responses, just over double the number and proportion of local authorities intend to implement technology developments in the next one to two years. However, a lower proportion (9% less) indicated implementation timescales of between three to five years and a higher proportion (10% more) indicated timescales of between six and ten years.

Figure 45 Timescales for the Introduction of New Technologies



Impact on Plastics Recycling

Over half of the planned developments are intended to occur over the next 5 years, although nearly one third of respondents were unsure of their implementation timescale.

The majority of responding authorities indicated that the new technology implementations were unlikely to have an impact on plastics recycling, while a proportion were unsure of the impact potential. Those authorities with a MRF installation indicated that more plastic types could potentially be collected and then separated at this facility.

9.2 Bioplastics

What are Bioplastics?

Plastic products made from 'bioplastics' are emerging internationally. From carrier bags and chocolate boxes, from fruit trays to water bottles, from mobile phones to CDs - there is an alternative made from biopolymers. Bioplastics are manufactured from polymers derived from natural renewable resources; starches, sugars or oils obtained from plants rather than from traditional oil products. Polymers from starch are less thermally stable than the common thermoplastics and the polymer chains are quickly broken down. Starch and polycaprolactone can degrade during recycling and extrusion of polythene and discolour the recyclate.

Impact of Bioplastics

There is however a lack of robust data to support the view that bioplastics offer environmental benefits when compared to oil-based polymers. When bioplastics enter the waste stream, measures need to be in place to ensure they are being handled in a way that will realise potential environmental benefits, rather than create unforeseen problems.

As the use of bioplastics increases, how to separate them from oil-based plastics will become a greater issue, together with ensuring that oil-based plastics do not contaminate compostable materials.

As part of this survey, local authorities were asked about their views on how the use of bioplastics impacts the waste stream. The responses are illustrated in Figure 46 below.

Figure 46 Impact of Bioplastics on Plastics Recycling

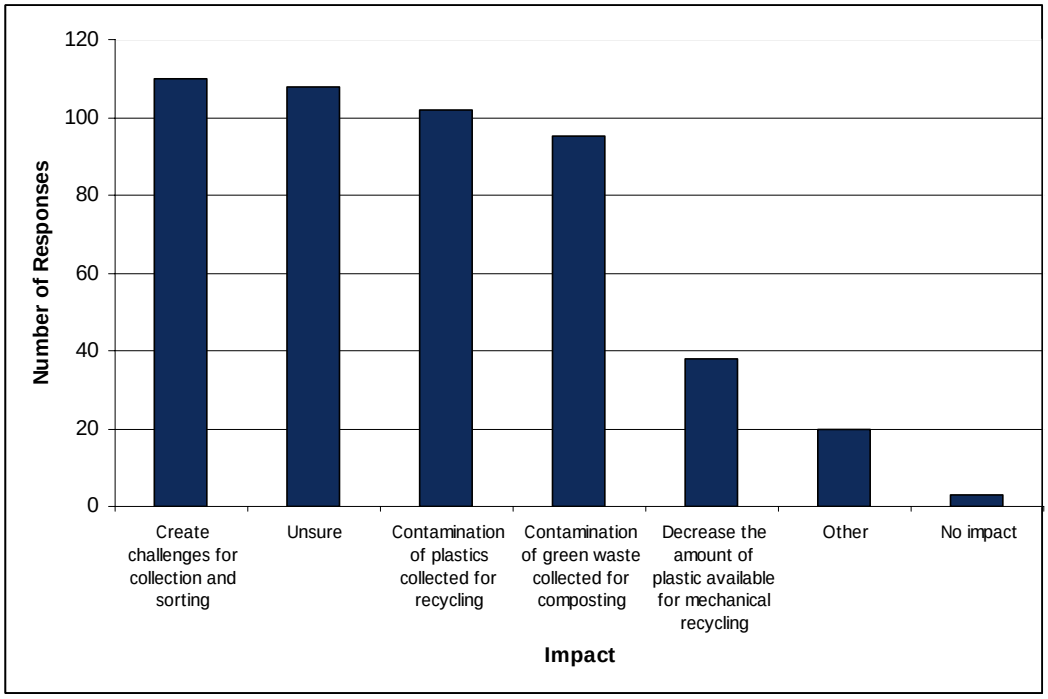
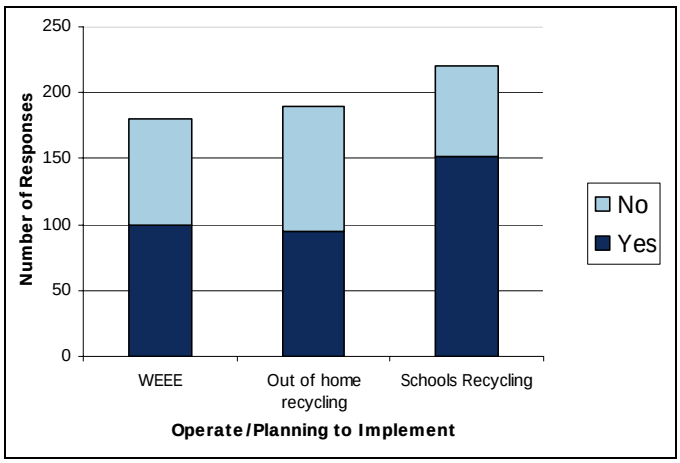


Figure 46 illustrates that most authorities consider bioplastics to cause waste stream challenges and contamination, although a significant proportion are unsure about their impacts. In addition the majority of respondents indicated that they were unsure about how to handle bioplastics but some did think that a public awareness campaign to reduce likely issues is necessary.

9.3 Other Plastics Collection Schemes

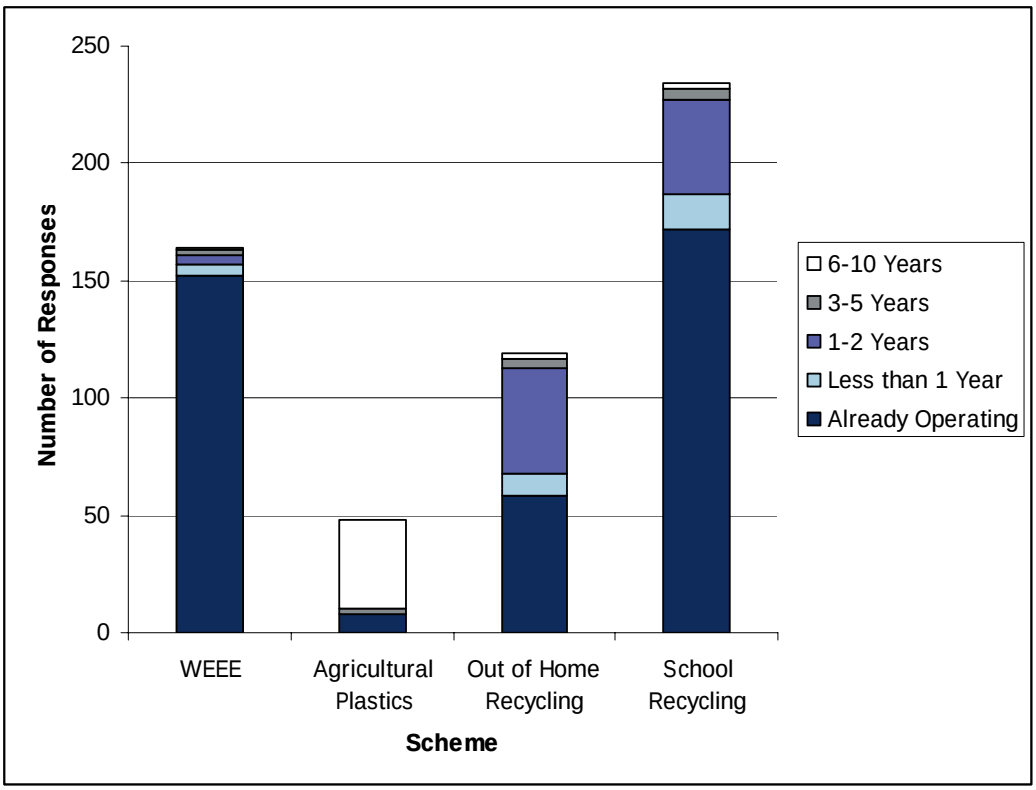
In order to optimise recycling and comply with new or impending legislation, many local authorities have implemented other plastic collection schemes, including: Waste Electrical and Electronic Equipment (WEEE); agricultural plastics (such as silage film); away from home and school services. The graph below indicates that a significant number of authorities already offer or plan to offer these services, with school recycling services being the most common.

Figure 47 Types of Recyclables Collection Service Authorities Currently or Plan to Operate



Local authorities' timescales for the implementation of these schemes were also obtained and are shown in Figure 48. Other than for agricultural plastics, most authorities participating in this part of the Survey are already operating services. The majority of those not yet operating services indicated that they plan to within the next two years.

Figure 48 Timescale for Implementation of Different Schemes



10.0 Key Findings and Conclusions

The quantity of plastic bottles collected in 2007 has increased considerably

Total Collections

- The total quantity of plastic bottles collected in 2007 has increased by 68% to 181,887 tonnes.
- England accounts for approximately 81% of the total tonnage, Scotland 7%, Northern Ireland 6% and Wales 6%.
- Approximately 35% of available plastic bottles from households were recycled in 2007, a 15% increase on 2006.
- The number of Local Authorities offering plastic bottle collections this year was recorded as 437 or 92%.

Both the quantity of plastic bottles collected through bring schemes and the number of bring banks available have increased in 2007

Bring Collections

- 34,482 tonnes (19%) were collected through bring schemes, an increase of 36% on 2006.
- 321 (73%) of local authorities have bring collection facilities, through 7,750 bring sites.
- There is no obvious correlation between expenditure and average (mean) quantity of plastic bottles collected by a local authority bring scheme.
- The South West of England collected the largest quantity (5,472 tonnes) of plastic bottles through kerbside collections, the North East the lowest (419 tonnes).
- 8 Cubic Yard Banks were shown to have the highest performance level of all the bring site containers, if measured through average quantity collectable in a single bank (30.8 tonnes).
- As the most common bring container type, 1100 litre wheelbins are responsible for the collection of the largest proportion of plastic bottles collected by local authorities.

The quantity of plastic bottles collected through kerbside schemes has dramatically increased

Kerbside Collections

- 147,405 tonnes (81%) of plastic bottles were recovered through kerbside collections.
- 304 local authorities (70%, or 77% if WDAs are discounted) provide kerbside collections for approximately 14.4 million households (57%); an increase of 3% on last year.
- An increasing number of Local Authorities collect plastic bottles solely through kerbside schemes; 27% in 2007 compared to 18% in 2006.
- Boxes were reported to be the most commonly used container.
- On average, local authorities collect approximately 9.3kg/hh/pa in 2007, an increase of 1.8kg per household per year from 2006.
- Fortnightly collections of plastic bottles are by far the most common and alternate weekly collections have the highest average performance level (11.3kg/hh/pa).

The number of local authorities collecting other household plastics has increased by almost one third

Other Plastics

- In 2007, 108 local authorities (23%) offer some form of 'other plastics' collection[21], an increase of 32% on 2006.
- The total reported quantity of other plastics collected was 10,857 tonnes.
- The vast majority (84%) of other household plastics were collected through kerbside collection schemes.
- Carrier bags and food tubs & trays are the most commonly collected other household plastics.
- The numbers of collections operating in the UK have increased for all types of plastics, other than EPS.
- Local authorities not collecting other plastics were primarily concerned with the lack of UK markets and suitable local baling/handling facilities.

More than three-quarters of material collected is recyclable plastic bottles

Profile of Plastic Bottle Collections

- The majority of material received (77%) is the targeted HDPE and PET bottles. The remaining 23% could be classified as contamination (i.e. non bottle plastic or other materials)
- The average national split of bottles was found to be 48% HDPE and 52% PET.
- The HDPE/PET split is very similar across the different regions of the UK, with PET plastic bottles remaining slightly dominant in each region.
- No significant seasonal variation in the HDPE/PET split was observed.

The majority of local authorities have no control over where their plastic bottles are reprocessed; 25% believe they are sold into the UK market

Plastic Bottle Markets

- Of the 109 respondents who were aware of how their plastic sales were managed, 41 (38%) have a contract for their plastic bottles and 68 (62%) use spot markets.
- 72% of local authorities have no control over the market to which their plastic bottles are sold.
- Almost half (47%) of local authorities do not see the revenue from their plastic bottle collections; sales revenue is received by their contractors.
- Approximately 17% of local authorities share revenue with their contractors and 15% receive material revenue directly.
- 25% of local authorities stated that the plastic bottles they collect are sold to a UK market, compared to 8% that are exported outside the EU and 3% within the EU.

[21] Local Authorities providing data on 'other plastics' such as quantities collected through bring or kerbside schemes, number of bring or CA sites, number of households, types targeted, etc were classified as having some form of 'other plastics' collection. Authorities that only 'characterised' or reported problems with 'other plastics' schemes were excluded.

More than double the number of local authorities reported investigating/ introducing new technologies to improve their waste management activities

Local Authority New Technology Plans

- 178 local authorities are planning to introduce new waste technologies in the next 10 years; more than double the number that reported their intentions in 2006.
- Of the authorities that could identify specific technologies EFW (46) and MBT plants (43) were the most frequently cited options.
- Over half of the planned developments are intended to be implemented over the next 5 years.
- 22% of local authorities believe bioplastics create challenges for collection and sorting of material and/or cause contamination of the waste stream (21%).

Appendix 1

Collection Tonnages by Local Authority

Keys

Bring Key	
Actual Bring	Actual quantity of plastic bottles collected through bring scheme supplied
Estimated Bring	2kg/hh/pa applied to the number of households on residual refuse rounds (households supplied)
Previous Bring	2kg/hh/pa applied to the number of households on residual refuse rounds (households from 2007 Survey)
2006 Bring	Quantity of plastic bottles collected through bring schemes taken from 2007 survey
Est Bring From Mixed Plastics	Quantity supplied for mixed plastics collected through bring collections; 50% assumed to be plastic bottles
No Response	No data was received from these local authorities
Not Surveyed	No survey was sent to these local authorities
Part of a Partnership	Quantities of plastic bottles collected through bring schemes incorporated into a Waste Partnership return
No Collection	No bring collection known of
Kerbside Key	
Actual Kerb	Actual quantity of plastic bottles collected through kerbside scheme supplied
Estimated Kerb	9.3kg/hh/pa applied to the number of households on dry recyclate collection (households supplied)
Previous Kerb	9.3kg/hh/pa applied to the number of households on dry recyclate collection (households from 2007 Survey)
2006 Kerb	Quantity of plastic bottles collected through kerbside schemes taken from 2007 survey
No Collection	No kerbside collection known of
No Response	No data was received from these local authorities
Not Surveyed	No survey was sent to these local authorities
Part of a Partnership	Quantities of plastic bottles collected through kerbside schemes incorporated into a Waste Partnership return

England

East Midlands

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Amber Valley Borough Council	Collection	104	Previous Bring	426	Actual Kerb	**530**
Ashfield District Council	Collection	104	Estimated Bring	484	Estimated Kerb	**588**
Bassetlaw District Council	Collection	1	2006 Bring	465	Actual Kerb	**466**
Blaby District Council	Collection	31	Actual Bring	367	Actual Kerb	**398**
Bolsover District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Boston Borough Council	Collection	0	Estimated Bring	275	Estimated Kerb	**275**
Broxtowe Borough Council	Collection	0	Estimated Bring	452	Previous Kerb	**452**
Charnwood Borough Council	Collection	0	Actual Bring	1,090	2006 Kerb	**1,090**
Chesterfield Borough Council	Collection	332	Actual Bring	0	Actual Kerb	**332**
Corby Borough Council	Collection	0	Previous Bring	0	Previous Kerb	**0**
Daventry District Council	Collection	0	Actual Bring	359	Actual Kerb	**359**
Derby City Council	Unitary	227	Estimated Bring	837	Estimated Kerb	**1,064**
Derbyshire County Council	Disposal	30	Actual Bring	0	No Collection	**30**
Derbyshire Dales District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
East Lindsey District Council	Collection	0	Estimated Bring	595	Estimated Kerb	**595**
East Northamptonshire Council	Collection	72	Estimated Bring	300	Actual Kerb	**372**
Erewash Borough Council	Collection	0	Previous Bring	817	Previous Kerb	**817**
Gedling Borough Council	Collection	0	Previous Bring	453	Previous Kerb	**453**
Harborough District Council	Collection	67	Previous Bring	0	Actual Kerb	**67**
High Peak Borough Council	Collection	78	Previous Bring	0	Actual Kerb	**78**
Hinckley and Bosworth Borough Council	Collection	105	Actual Bring	0	Actual Kerb	**105**
Kettering Borough Council	Collection	0	Actual Bring	600	Actual Kerb	**600**
Leicester City Council	Unitary	0	Previous Bring	1,031	Previous Kerb	**1,031**
Leicestershire County Council	Disposal	160	Actual Bring	0	No Collection	**160**
Lincoln City Council	Collection	0	Actual Bring	100	Actual Kerb	**100**
Lincolnshire County Council	Disposal	64	Actual Bring	0	No Collection	**64**
Mansfield District Council	Collection	0	Estimated Bring	427	Estimated Kerb	**427**
Melton Borough Council	Collection	42	Estimated Bring	250	Actual Kerb	**292**
Newark and Sherwood District Council	Collection	0	Estimated Bring	446	Estimated Kerb	**446**
North East Derbyshire District Council	Collection	66	2006 Bring	0	Actual Kerb	**66**
North Kesteven District Council	Collection	0	Estimated Bring	419	Estimated Kerb	**419**
North West Leicestershire District Council	Collection	0	Actual Bring	453	Actual Kerb	**453**
Northampton Borough Council	Collection	0	Estimated Bring	837	Estimated Kerb	**837**
Northamptonshire County Council	Disposal	101	Actual Bring	0	No Collection	**101**
Nottingham City Council	Unitary	0	Previous Bring	381	Previous Kerb	**381**
Nottinghamshire County Council	Disposal	17	Actual Bring	0	No Collection	**17**
Oadby and Wigston Borough Council	Collection	0	Actual Bring	317	Actual Kerb	**317**
Rushcliffe Borough Council	Collection	0	Estimated Bring	427	Estimated Kerb	**427**
Rutland County Council	Unitary	0	Previous Bring	112	Previous Kerb	**112**
South Derbyshire District Council	Collection	159	2006 Bring	0	Actual Kerb	**159**
South Holland District Council	Collection	0	Actual Bring	1,059	Actual Kerb	**1,059**
South Kesteven District Council	Collection	0	Previous Bring	381	Previous Kerb	**381**
South Northamptonshire District Council	Collection	15	Actual Bring	365	Actual Kerb	**380**
Wellingborough Borough Council	Collection	0	Estimated Bring	298	Estimated Kerb	**298**
West Lindsey District Council	Collection	78	Estimated Bring	362	2006 Kerb	**440**
Total						**17,036**

Waste & Resources Action Programme

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Eastern

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Babergh District Council	Collection	0	Actual Bring	1,757	Actual Kerb	**1,757**
Basildon District Council	Collection	0	Previous Bring	614	Previous Kerb	**614**
Bedford Borough Council	Collection	0	Previous Bring	588	Previous Kerb	**588**
Bedfordshire County Council	Disposal	1	Actual Bring	0	No Collection	**1**
Braintree District Council	Collection	103	Previous Bring	507	Previous Kerb	**610**
Breckland Council	Collection	0	Estimated Bring	512	Estimated Kerb	**512**
Brentwood Borough Council	Collection	64	Previous Bring	0	Actual Kerb	**64**
Broadland District Council	Collection	0	Previous Bring	600	Previous Kerb	**600**
Broxbourne Borough Council	Collection	210	Actual Bring	8	Previous Kerb	**218**
Cambridge City Council	Collection	104	Actual Bring	393	Actual Kerb	**497**
Cambridgeshire County Council	Disposal	15	Actual Bring	0	No Collection	**15**
Castle Point Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Chelmsford Borough Council	Collection	0	Previous Bring	558	Previous Kerb	**558**
Colchester Borough Council	Collection	138	Actual Bring	407	Previous Kerb	**545**
Dacorum Borough Council	Collection	0	Previous Bring	530	Previous Kerb	**530**
East Cambridgeshire District Council	Collection	112	Actual Bring	0	Actual Kerb	**112**
East Hertfordshire District Council	Collection	46	Actual Bring	0	Actual Kerb	**46**
Epping Forest Borough Council	Collection	104	Estimated Bring	437	Estimated Kerb	**541**
Essex County Council	Disposal	327	Actual Bring	0	No Collection	**327**
Fenland District Council	Collection	0	Actual Bring	291	Actual Kerb	**291**
Forest Heath District Council	Collection	51	Actual Bring	905	Actual Kerb	**956**
Great Yarmouth Borough Council	Collection	0	Previous Bring	372	Previous Kerb	**372**
Harlow District Council	Collection	70	Estimated Bring	326	Estimated Kerb	**396**
Hertfordshire County Council	Disposal	Not Surveyed	Not Surveyed	Not Surveyed	Not Surveyed	**Not Surveyed**
Hertsmere Borough Council	Collection	0	Actual Bring	458	Actual Kerb	**458**
Huntingdonshire District Council	Collection	0	Actual Bring	559	2006 Kerb	**559**
Ipswich Borough Council	Collection	0	Previous Bring	493	Estimated Kerb	**493**
Kings Lynn and West Norfolk Borough	Collection	0	Actual Bring	623	Actual Kerb	**623**
Luton Borough Council	Unitary	62	Actual Bring	723	Actual Kerb	**785**
Maldon District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Mid Bedfordshire District Council	Collection	0	Estimated Bring	505	Estimated Kerb	**505**
Mid Suffolk District Council	Collection	0	Previous Bring	358	Previous Kerb	**358**
Norfolk County Council	Disposal	0	No Collection	0	No Collection	**0**
North Hertfordshire District Council	Collection	48	Actual Bring	0	Actual Kerb	**48**
North Norfolk District Council	Collection	0	Actual Bring	517	Actual Kerb	**517**
Norwich City Council	Collection	39	2006 Bring	105	2006 Kerb	**144**
Peterborough City Council	Unitary	139	Estimated Bring	935	Actual Kerb	**1,074**
Rochford District Council	Collection	49	Actual Bring	0	Actual Kerb	**49**
South Bedfordshire District Council	Collection	0	Estimated Bring	474	Estimated Kerb	**474**
South Cambridgeshire District Council	Collection	192	Estimated Bring	530	Estimated Kerb	**722**
South Norfolk Council	Collection	28	Previous Bring	859	2006 Kerb	**887**
Southend-on-Sea Borough Council	Unitary	155	Estimated Bring	719	Estimated Kerb	**873**
St Albans City and District Council	Collection	99	Actual Bring	307	Actual Kerb	**406**
St Edmundsbury Borough Council	Collection	0	Estimated Bring	419	Estimated Kerb	**419**
Stevenage Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Suffolk Coastal District Council	Collection	0	Estimated Bring	171	Estimated Kerb	**171**
Suffolk County Council	Disposal	No Response	No Response	No Response	No Response	**No Response**
Tendring District Council	Collection	40	Estimated Bring	628	Estimated Kerb	**668**
Three Rivers District Council	Collection	0	Actual Bring	634	Actual Kerb	**634**
Thurrock Council	Unitary	0	Estimated Bring	1	Estimated Kerb	**1**
Uttlesford District Council	Collection	60	Estimated Bring	279	Estimated Kerb	**339**
Watford Borough Council	Collection	0	Previous Bring	720	Previous Kerb	**720**
Waveney District Council	Collection	0	Previous Bring	549	Previous Kerb	**549**
Welwyn Hatfield Council	Collection	77	Actual Bring	0	Actual Kerb	**77**
Total						**22,702**

London

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Barking and Dagenham LB	Collection	140	Estimated Bring	651	Estimated Kerb	**790**
Barnet LB	Collection	0	Actual Bring	0	Actual Kerb	**0**
Bexley LB	Unitary	43	2006 Bring	911	Actual Kerb	**954**
Brent LB	Collection	80	Actual Bring	40	Actual Kerb	**120**
Bromley LB	Unitary	0	Previous Bring	1,118	Previous Kerb	**1,118**
Camden LB	Collection	196	Estimated Bring	542	Estimated Kerb	**737**
City of London	Unitary	0	Estimated Bring	49	Estimated Kerb	**49**
Croydon LB	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Ealing LB	Collection	242	Previous Bring	0	Actual Kerb	**242**
East London Waste Authority	Disposal	Not Surveyed	Not Surveyed	Not Surveyed	Not Surveyed	**Not Surveyed**
Enfield LB	Collection	6	Actual Bring	1,188	Actual Kerb	**1,194**
Greenwich LB	Unitary	0	Estimated Bring	931	Estimated Kerb	**931**
Hackney LB	Collection	102	Previous Bring	0	Actual Kerb	**102**
Hammersmith and Fulham LB	Collection	0	Actual Bring	1,379	Actual Kerb	**1,379**
Haringey LB	Collection	0	Actual Bring	679	Estimated Kerb	**679**
Harrow LB	Collection	168	Estimated Bring	740	Actual Kerb	**908**
Havering LB	Collection	195	Estimated Bring	906	Estimated Kerb	**1,101**
Hillingdon LB	Collection	192	Estimated Bring	947	Estimated Kerb	**1,139**
Hounslow LB	Collection	288	Actual Bring	0	Actual Kerb	**288**
Islington LB	Collection	162	Estimated Bring	563	Actual Kerb	**725**
Lambeth LB	Collection	166	Estimated Bring	772	Estimated Kerb	**938**
Lewisham LB	Unitary	228	Actual Bring	1,062	Actual Kerb	**1,290**
Merton LB	Unitary	0	Actual Bring	632	Previous Kerb	**632**
Newham LB	Collection	196	Estimated Bring	911	Estimated Kerb	**1,107**
North London Waste Authority	Disposal	0	Actual Bring	0	No Collection	**0**
Redbridge LB	Collection	0	Previous Bring	770	Previous Kerb	**770**
Richmond upon Thames LB	Collection	65	Previous Bring	56	2006 Kerb	**121**
Royal Borough of Kensington and Chelsea	Collection	128	Actual Bring	595	Actual Kerb	**723**
Royal Borough of Kingston upon Thames	Unitary	0	Previous Bring	512	Previous Kerb	**512**
Southwark LB	Unitary	318	Actual Bring	338	Actual Kerb	**656**
Sutton LB	Unitary	87	Estimated Bring	707	Estimated Kerb	**793**
Tower Hamlets LB	Unitary	46	Actual Bring	230	Actual Kerb	**277**
Waltham Forest LB	Collection	697	Estimated Bring	744	Estimated Kerb	**1,441**
Wandsworth LB	Collection	0	Previous Bring	1,181	Previous Kerb	**1,181**
West London Waste Authority	Disposal	No Response	No Response	No Response	No Response	**No Response**
Western Riverside Waste Authority	Disposal	0	No Collection	0	No Collection	**0**
Westminster City Council	Unitary	825	Estimated Bring	921	Estimated Kerb	**1,746**
Total						**24,643**

North East

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Alnwick District Council	Collection	32	Estimated Bring	120	Actual Kerb	**152**
Berwick-upon-Tweed Borough Council	Collection	0	Estimated Bring	130	Estimated Kerb	**130**
Blyth Valley Borough Council	Collection	0	Estimated Bring	337	Estimated Kerb	**337**
Castle Morpeth Borough Council	Collection	0	Estimated Bring	206	Previous Kerb	**206**
Chester-Le-Street District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Darlington Borough Council	Unitary	0	Actual Bring	102	Actual Kerb	**102**
Derwentside District Council	Collection	0	Actual Bring	249	Actual Kerb	**249**
Durham City Council	Collection	0	Previous Bring	356	Previous Kerb	**356**
Durham County Council	Disposal	0	No Collection	0	No Collection	**0**
Easington District Council	Collection	0	Estimated Bring	391	Estimated Kerb	**391**
Gateshead MBC	Unitary	9	Actual Bring	0	Actual Kerb	**9**
Hartlepool Borough Council	Unitary	18	2006 Bring	457	Previous Kerb	**475**
Middlesbrough Borough Council	Unitary	119	Previous Bring	0	Actual Kerb	**119**
Newcastle-upon-Tyne City Council MBC	Unitary	38	Actual Bring	420	Actual Kerb	**458**
North Tyneside Council	Unitary	0	Actual Bring	333	Actual Kerb	**333**
Northumberland County Council	Disposal	16	Actual Bring	0	No Collection	**16**
Redcar and Cleveland Borough Council	Unitary	44	Actual Bring	401	Actual Kerb	**445**
Sedgefield Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
South Tyneside MBC	Unitary	57	Actual Bring	0	Actual Kerb	**57**
Stockton-on-Tees Borough Council	Unitary	22	2006 Bring	130	Actual Kerb	**152**
Sunderland City Council	Unitary	11	2006 Bring	0	Actual Kerb	**11**
Teesdale District Council	Collection	0	Actual Bring	63	Actual Kerb	**63**
Tynedale District Council	Collection	54	Estimated Bring	206	Actual Kerb	**260**
Wansbeck District Council	Collection	0	Estimated Bring	270	Estimated Kerb	**270**
Wear Valley District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Total						**4,589**

North West

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Allerdale Borough Council	Collection	60	Previous Bring	0	Actual Kerb	**60**
Barrow-in-Furness Borough Council	Collection	255	Actual Bring	0	Actual Kerb	**255**
Blackburn with Darwen Borough Council	Unitary	0	Previous Bring	539	Previous Kerb	**539**
Blackpool Borough Council	Unitary	0	Previous Bring	442	Previous Kerb	**442**
Bolton MBC	Collection	234	Estimated Bring	1,023	Estimated Kerb	**1,257**
Burnley Borough Council	Collection	0	Estimated Bring	372	Estimated Kerb	**372**
Bury MBC	Collection	37	Actual Bring	641	Actual Kerb	**678**
Carlisle City Council	Collection	0	Estimated Bring	393	Estimated Kerb	**393**
Cheshire County Council	Disposal	119	Actual Bring	0	No Collection	**119**
Chester City Council	Collection	110	Estimated Bring	0	Actual Kerb	**110**
Chorley Borough Council	Collection	39	Actual Bring	1,305	Actual Kerb	**1,344**
Congleton Borough Council	Collection	350	Actual Bring	200	Actual Kerb	**550**
Copeland Borough Council	Collection	182	Actual Bring	4	Previous Kerb	**186**
Crewe and Nantwich Borough Council	Collection	19	Actual Bring	721	Actual Kerb	**739**
Cumbria County Council	Disposal	0	No Collection	0	No Collection	**0**
Eden District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Ellesmere Port and Neston Borough Council	Collection	0	Previous Bring	700	Previous Kerb	**700**
Fylde Borough Council	Collection	0	Actual Bring	597	Actual Kerb	**597**
Greater Manchester WDA (MBC)	Disposal	0	No Collection	0	No Collection	**0**
Halton Borough Council	Unitary	104	Estimated Bring	20	2006 Kerb	**124**
Hyndburn Borough Council	Collection	0	Actual Bring	337	Actual Kerb	**337**
Knowsley MBC	Collection	0	Actual Bring	218	Actual Kerb	**218**
Lancashire County Council	Disposal	473	Actual Bring	0	No Collection	**473**
Lancaster City Council	Collection	0	Actual Bring	222	2006 Kerb	**222**
Liverpool City Council	Collection	0	Previous Bring	1,953	Previous Kerb	**1,953**
Macdesfield Borough Council	Collection	134	Actual Bring	0	Actual Kerb	**134**
Manchester City Council MBC	Collection	183	Actual Bring	0	Actual Kerb	**183**
Merseyside WDA (MBC)	Disposal	21	Actual Bring	0	No Collection	**21**
Oldham MBC	Collection	186	Estimated Bring	402	Actual Kerb	**588**
Pendle Borough Council	Collection	471	Actual Bring	471	Actual Kerb	**943**
Preston Borough Council	Collection	116	Estimated Bring	545	Estimated Kerb	**661**
Ribble Valley Borough Council	Collection	0	Actual Bring	86	Actual Kerb	**86**
Rochdale MBC	Collection	44	Actual Bring	1,040	Actual Kerb	**1,084**
Rossendale Borough Council	Collection	60	Estimated Bring	267	Estimated Kerb	**327**
Salford City Council MBC	Collection	206	Estimated Bring	225	Actual Kerb	**431**
Sefton MBC	Collection	0	Actual Bring	0	Actual Kerb	**0**
South Ribble Borough Council	Collection	0	Actual Bring	578	Actual Kerb	**578**
Southlakeland	Collection	711	Actual Bring	0	Actual Kerb	**711**
St Helens MBC	Collection	14	Actual Bring	12	2006 Kerb	**26**
Stockport MBC	Collection	0	Actual Bring	0	Actual Kerb	**0**
Tameside MBC	Collection	268	Actual Bring	179	Actual Kerb	**447**
Trafford MBC	Collection	76	Actual Bring	0	Actual Kerb	**76**
Vale Royal Borough Council	Collection	40	Actual Bring	350	Actual Kerb	**390**
Warrington Borough Council	Unitary	186	Actual Bring	0	Actual Kerb	**186**
West Lancashire District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Wigan MBC	Unitary	87	Actual Bring	0	Actual Kerb	**87**
Wirral MBC	Collection	0	Actual Bring	768	Actual Kerb	**768**
Wyre Borough Council	Collection	0	Actual Bring	627	Actual Kerb	**627**
Total						**20,021**

South East

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Adur District Council	Collection	0	Previous Bring	379	Previous Kerb	**379**
Arun District Council	Collection	17	Actual Bring	622	Actual Kerb	**639**
Ashford Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Aylesbury Vale District Council	Collection	137	Estimated Bring	627	Estimated Kerb	**764**
Basingstoke and Deane Borough Council	Collection	132	Estimated Bring	569	Actual Kerb	**701**
Bracknell Forest Borough Council	Unitary	90	Estimated Bring	419	Estimated Kerb	**509**
Brighton and Hove Council	Unitary	0	Actual Bring	488	Actual Kerb	**488**
Buckinghamshire County Council	Disposal	3	Actual Bring	0	No Collection	**3**
Canterbury City Council	Collection	0	Actual Bring	902	Actual Kerb	**902**
Cherwell District Council	Collection	0	Estimated Bring	532	Estimated Kerb	**532**
Chichester District Council	Collection	12	Actual Bring	624	Actual Kerb	**636**
Chiltern District Council	Collection	No Response	Actual Bring	No Response	No Response	**0**
Crawley Borough Council	Collection	84	Estimated Bring	439	Actual Kerb	**523**
Dartford Borough Council	Collection	0	Actual Bring	360	Actual Kerb	**360**
Dover District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
East Hampshire District Council	Collection	0	Actual Bring	399	2006 Kerb	**399**
East Sussex County Council	Disposal	108	Actual Bring	0	No Collection	**108**
Eastbourne Borough Council	Collection	98	Actual Bring	0	Actual Kerb	**98**
Eastleigh Borough Council	Collection	0	Estimated Bring	465	Estimated Kerb	**465**
Elmbridge Borough Council	Collection	0	Actual Bring	417	Actual Kerb	**417**
Epsom and Ewell Borough Council	Collection	29	Actual Bring	0	Actual Kerb	**29**
Fareham Borough Council	Collection	0	Actual Bring	494	Actual Kerb	**494**
Gosport Borough Council	Collection	72	Estimated Bring	308	Estimated Kerb	**380**
Gravesham Borough Council	Collection	0	Previous Bring	337	Previous Kerb	**337**
Guildford Borough Council	Collection	106	Estimated Bring	465	Estimated Kerb	**571**
Hampshire County Council	Disposal	17	Actual Bring	0	No Collection	**17**
Hart District Council	Collection	0	Actual Bring	372	2006 Kerb	**372**
Hastings Borough Council	Collection	83	Estimated Bring	385	Estimated Kerb	**468**
Havant Borough Council	Collection	8	Estimated Bring	437	Estimated Kerb	**446**
Horsham District Council	Collection	0	Actual Bring	310	Actual Kerb	**310**
Isle of Wight Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Kent County Council	Disposal	0	No Collection	0	No Collection	**0**
Lewes District Council	Collection	262	Actual Bring	326	Actual Kerb	**588**
Maidstone Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Medway Borough Council	Unitary	0	Actual Bring	955	Actual Kerb	**955**
Mid Sussex District Council	Collection	112	Estimated Bring	521	Estimated Kerb	**633**
Milton Keynes Council	Unitary	0	Previous Bring	952	Previous Kerb	**952**
Mole Valley District Council	Collection	0	Previous Bring	335	Previous Kerb	**335**
New Forest District Council	Collection	50	Actual Bring	500	Actual Kerb	**550**
Oxford City Council	Collection	31	Actual Bring	0	Actual Kerb	**31**
Oxfordshire County Council	Disposal	76	Actual Bring	0	No Collection	**76**
Portsmouth City Council	Unitary	4	Previous Bring	555	2006 Kerb	**559**
Reading Borough Council	Unitary	0	Previous Bring	600	Previous Kerb	**600**
Reigate and Banstead Borough Council	Collection	159	Actual Bring	0	Actual Kerb	**159**
Rother District Council	Collection	115	Actual Bring	224	Actual Kerb	**339**
Runnymede Borough Council	Collection	118	2006 Bring	0	Actual Kerb	**118**
Rushmoor Borough Council	Collection	27	Previous Bring	17	2006 Kerb	**45**
Sevenoaks District Council	Collection	0	Actual Bring	483	Actual Kerb	**483**
Shepway District Council	Collection	0	Actual Bring	468	Actual Kerb	**468**
Slough Borough Council	Unitary	26	Actual Bring	0	Actual Kerb	**26**
South Bucks District Council	Collection	46	Actual Bring	0	Actual Kerb	**46**
South Oxfordshire District Council	Collection	0	Estimated Bring	512	Estimated Kerb	**512**
Southampton City Council	Unitary	0	Previous Bring	856	Previous Kerb	**856**
Spelthorne Borough Council	Collection	0	Estimated Bring	335	Estimated Kerb	**335**
Surrey County Council	Disposal	No Response	No Response	No Response	No Response	**No Response**
Surrey Heath Borough Council	Collection	232	Actual Bring	0	Actual Kerb	**232**
Swale Borough Council	Collection	0	Estimated Bring	484	Estimated Kerb	**484**
Tandridge District Council	Collection	0	Actual Bring	44	Actual Kerb	**44**
Test Valley Borough Council	Collection	160	Previous Bring	860	Previous Kerb	**1,020**
Thanet District Council	Collection	0	Previous Bring	233	Previous Kerb	**233**
Tonbridge and Malling Borough Council	Collection	353	2006 Bring	0	Actual Kerb	**353**
Tunbridge Wells Borough Council	Collection	93	Actual Bring	0	Actual Kerb	**93**
Vale of White Horse District Council	Collection	0	Actual Bring	620	Actual Kerb	**620**
Waverley Borough Council	Collection	17	Previous Bring	550	2006 Kerb	**567**
Wealden District Council	Collection	128	Actual Bring	552	Actual Kerb	**680**
West Berkshire District Council	Unitary	60	Est From Plastics	0	Actual Kerb	**60**
West Oxfordshire District Council	Collection	86	Estimated Bring	400	Actual Kerb	**486**
West Sussex County Council	Disposal	No Response	No Response	No Response	No Response	**No Response**
Winchester City Council	Collection	92	Estimated Bring	428	Estimated Kerb	**520**

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Windsor and Maidenhead Borough Council	Unitary	118	Estimated Bring	840	Actual Kerb	**958**
Woking Borough Council	Collection	80	Estimated Bring	372	Estimated Kerb	**452**
Wokingham Council	Unitary	0	Actual Bring	400	Actual Kerb	**400**
Worthing Borough Council	Collection	0	Estimated Bring	432	Estimated Kerb	**432**
Wycombe District Council	Collection	133	Estimated Bring	285	Estimated Kerb	**418**
Total						**27,044**

South West

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Bath and North East Somerset Council	Unitary	37	Actual Bring	583	Actual Kerb	**620**
Bournemouth Borough Council	Unitary	160	Estimated Bring	744	Estimated Kerb	**904**
Bristol City Council	Unitary	932	2006 Bring	0	Actual Kerb	**932**
Caradon District Council	Collection	19	Estimated Bring	359	Estimated Kerb	**378**
Carrick District Council	Collection	84	Estimated Bring	278	Actual Kerb	**362**
Cheltenham Borough Council	Collection	96	Previous Bring	0	Actual Kerb	**96**
Christchurch Borough Council	Collection	65	Actual Bring	0	Actual Kerb	**65**
Cornwall County Council	Disposal	213	Actual Bring	0	Actual Kerb	**213**
Cotswold District Council	Collection	157	Actual Bring	0	Actual Kerb	**157**
Council of the Isles of Scilly	Unitary	1	Actual Bring	0	Actual Kerb	**1**
Devon County Council	Disposal	No Response	No Response	No Response	No Response	**No Response**
Dorset County Council	Disposal	99	Actual Bring	0	No Collection	**99**
East Devon District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
East Dorset District Council	Collection	99	2006 Bring	333	Actual Kerb	**431**
Exeter City Council	Collection	0	Actual Bring	678	Actual Kerb	**678**
Forest of Dean District Council	Collection	9	Actual Bring	0	Actual Kerb	**9**
Gloucester City Council	Collection	No Response	Estimated Bring	0	Estimated Kerb	**0**
Gloucestershire City Council	Disposal	154	Actual Bring	0	No Collection	**154**
Kennet District Council	Collection	171	Actual Bring	0	Actual Kerb	**171**
Kerrier District Council	Collection	86	Actual Bring	100	Actual Kerb	**186**
Mendip District Council	Collection	Collect	Part of a Partnership	0	Part of a Partnership	**0**
Mid Devon District Council	Collection	169	Estimated Bring	307	Estimated Kerb	**476**
North Cornwall District Council	Collection	0	Previous Bring	367	Previous Kerb	**367**
North Devon District Council	Collection	0	Actual Bring	527	2006 Kerb	**527**
North Dorset District Council	Collection	50	Estimated Bring	251	Estimated Kerb	**301**
North Somerset Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
North Wiltshire District Council	Collection	No Response	Actual Bring	No Response	No Response	**0**
Penwith District Council	Collection	103	Actual Bring	0	Actual Kerb	**103**
Plymouth City Council	Unitary	223	Estimated Bring	99	Actual Kerb	**322**
Poole Borough Council	Unitary	0	Previous Bring	1,657	2006 Kerb	**1,657**
Purbeck District Council	Collection	84	2006 Bring	0	Actual Kerb	**84**
Restormel Borough Council	Collection	90	Estimated Bring	417	Estimated Kerb	**506**
Salisbury District Council	Collection	252	Actual Bring	0	Actual Kerb	**252**
Sedgemoor District Council	Collection	Collect	Part of a Partnership	0	Part of a Partnership	**0**
Somerset County Council	Disposal	0	Actual Bring	0	Actual Kerb	**0**
Somerset Waste Partnership	Unitary	797	Actual Bring	0	No Collection	**797**
South Gloucestershire Council	Unitary	453	2006 Bring	0	Actual Kerb	**453**
South Hams District Council	Collection	0	Actual Bring	342	Actual Kerb	**342**
South Somerset District Council	Collection	Collect	Part of a Partnership	0	Part of a Partnership	**0**
Stroud District Council	Collection	0	Previous Bring	446	Previous Kerb	**446**
Swindon Borough Council	Unitary	273	Previous Bring	389	2006 Kerb	**662**
Taunton Deane Borough Council	Collection	Collect	Part of a Partnership	0	Part of a Partnership	**0**
Teignbridge District Council	Collection	76	Actual Bring	242	Actual Kerb	**318**
Tewkesbury Borough Council	Collection	133	Actual Bring	0	Actual Kerb	**133**
Torbay Council	Unitary	0	Estimated Bring	365	Estimated Kerb	**365**
Torridge District Council	Collection	8	Actual Bring	268	Actual Kerb	**277**
West Devon Borough Council	Collection	110	2006 Bring	0	Actual Kerb	**110**
West Dorset District Council	Collection	93	Previous Bring	0	Actual Kerb	**93**
West Somerset District Council	Collection	Collect	Part of a Partnership	0	Part of a Partnership	**0**
West Wiltshire District Council	Collection	128	Actual Bring	0	Actual Kerb	**128**
Weymouth and Portland Borough Council	Collection	46	Actual Bring	210	Actual Kerb	**256**
Wiltshire County Council	Disposal	0	No Collection	0	No Collection	**0**
Total						**14,434**

West Midlands

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Birmingham City Council	Unitary	0	Previous Bring	93	Previous Kerb	**93**
Bridgnorth District Council	Collection	Collect	Actual Bring	0	Actual Kerb	**0**
Bromsgrove District Council	Collection	0	Actual Bring	412	Actual Kerb	**412**
Cannock Chase Council	Collection	0	Actual Bring	537	Actual Kerb	**537**
Coventry City Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Dudley MBC	Unitary	0	Actual Bring	0	Actual Kerb	**0**
East Staffordshire Borough Council	Collection	79	Actual Bring	432	Actual Kerb	**511**
Herefordshire Council	Unitary	No Response	No Response	No Response	No Response	**0**
Lichfield District Council	Collection	0	Actual Bring	481	Actual Kerb	**481**
Malvern Hills District Council	Collection	0	Estimated Bring	303	Estimated Kerb	**303**
Newcastle-under-Lyme Borough Council	Collection	106	Estimated Bring	0	Actual Kerb	**106**
North Shropshire District Council	Collection	Collect	Actual Bring	0	Actual Kerb	**0**
North Warwickshire Borough Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Nuneaton and Bedworth Borough Council	Collection	0	Previous Bring	474	Previous Kerb	**474**
Oswestry Borough Council	Collection	Collect	Actual Bring	0	Actual Kerb	**0**
Redditch Borough Council	Collection	69	Estimated Bring	265	Estimated Kerb	**334**
Rugby Borough Council	Collection	77	Actual Bring	0	Actual Kerb	**77**
Sandwell MBC	Unitary	38	2006 Bring	0	Actual Kerb	**38**
Shrewsbury and Atcham Borough Council	Collection	129	Actual Bring	0	Actual Kerb	**129**
Shropshire County Council	Disposal	200	Actual Bring	0	Actual Kerb	**200**
Solihull MBC	Unitary	89	2006 Bring	0	Actual Kerb	**89**
South Shropshire District Council	Collection	Collect	Actual Bring	0	Actual Kerb	**0**
South Staffordshire Council	Collection	0	Actual Bring	606	Actual Kerb	**606**
Stafford Borough Council	Collection	0	Actual Bring	277	Actual Kerb	**277**
Staffordshire County Council	Disposal	8	Actual Bring	0	No Collection	**8**
Staffordshire Moorlands District Council	Collection	133	Actual Bring	0	Actual Kerb	**133**
Stoke-on-Trent City Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Stratford-on-Avon District Council	Collection	29	Actual Bring	0	Actual Kerb	**29**
Tamworth Borough Council	Collection	0	Actual Bring	470	Actual Kerb	**470**
Telford and Wrekin Council	Unitary	8	Actual Bring	0	Actual Kerb	**8**
Walsall MBC	Unitary	24	Actual Bring	0	Actual Kerb	**24**
Warwick District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Warwickshire County Council	Disposal	257	Actual Bring	0	No Collection	**257**
Wolverhampton MBC	Unitary	25	Actual Bring	0	Actual Kerb	**25**
Worcester City Council	Collection	0	Previous Bring	242	Previous Kerb	**242**
Worcestershire County Council	Disposal	40	Actual Bring	0	No Collection	**40**
Wychavon District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Wyre Forest District Council	Collection	0	Actual Bring	521	Actual Kerb	**521**
Total						**6,424**

Yorkshire/Humber

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Barnsley MBC	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Bradford City MDC (MBC)	Unitary	576	Actual Bring	0	Actual Kerb	**576**
Calderdale MBC	Unitary	67	Actual Bring	0	Actual Kerb	**67**
Craven District Council	Collection	0	Actual Bring	0	Actual Kerb	**0**
Doncaster MBC	Unitary	0	Actual Bring	0	Actual Kerb	**0**
East Riding of Yorkshire Council	Unitary	40	Actual Bring	898	Actual Kerb	**938**
Hambleton District Council	Collection	128	Actual Bring	641	Actual Kerb	**769**
Harrogate Borough Council	Collection	30	Actual Bring	0	Actual Kerb	**30**
Kingston-upon-Hull City Council	Unitary	88	Actual Bring	587	Actual Kerb	**675**
Kirklees MBC	Unitary	0	Actual Bring	920	Actual Kerb	**920**
Leeds City Council MBC	Unitary	58	Actual Bring	2,697	Actual Kerb	**2,755**
North East Lincolnshire Council	Unitary	119	Actual Bring	0	Actual Kerb	**119**
North Lincolnshire Council	Unitary	126	Actual Bring	288	Actual Kerb	**414**
North Yorkshire County Council	Disposal	338	Actual Bring	0	No Collection	**338**
Richmondshire District Council	Collection	63	Actual Bring	0	Actual Kerb	**63**
Rotherham MBC	Unitary	26	Actual Bring	0	Actual Kerb	**26**
Ryedale District Council	Collection	47	Previous Bring	0	Actual Kerb	**47**
Scarborough Borough Council	Collection	130	Actual Bring	195	Actual Kerb	**325**
Selby District Council	Collection	53	Actual Bring	0	Actual Kerb	**53**
Sheffield City Council	Unitary	677	Actual Bring	0	Actual Kerb	**677**
Wakefield City MDC	Unitary	217	Previous Bring	236	2006 Kerb	**453**
York City Council	Unitary	58	Actual Bring	430	Actual Kerb	**488**
Total						**9,732**

Northern Ireland

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA	Bring Data Type	Total Kerbside Collection WCA/UA	Kerbside Data Type	Total Tonnage Collected
Antrim Borough Council	Unitary	0	Previous Bring	167	Previous Kerb	**167**
Ards Borough Council	Unitary	0	Actual Bring	181	Actual Kerb	**181**
Armagh City and District Council	Unitary	0	Actual Bring	264	2006 Kerb	**264**
Ballymena Borough Council	Unitary	0	Actual Bring	1,096	Actual Kerb	**1,096**
Ballymoney Borough Council	Unitary	0	Previous Bring	210	Previous Kerb	**210**
Banbridge District Council	Unitary	26	Actual Bring	190	Actual Kerb	**216**
Belfast City Council	Unitary	0	Actual Bring	735	Actual Kerb	**735**
Carrickfergus Borough Council	Unitary	0	Estimated Bring	148	Estimated Kerb	**148**
Castlereagh Borough Council	Unitary	1	Actual Bring	292	Actual Kerb	**293**
Coleraine Borough Council	Unitary	0	Actual Bring	302	Actual Kerb	**302**
Cookstown District Council	Unitary	1	Actual Bring	289	Actual Kerb	**290**
Craigavon Borough Council	Unitary	0	Estimated Bring	326	Estimated Kerb	**326**
Derry City Council	Unitary	0	Previous Bring	510	Previous Kerb	**510**
Down District Council	Unitary	0	Previous Bring	256	Previous Kerb	**256**
Dungannon and South Tyrone Borough Council	Unitary	0	Previous Bring	490	Previous Kerb	**490**
Fermanagh District Council	Unitary	0	Estimated Bring	218	Estimated Kerb	**218**
Larne Borough Council	Unitary	0	Actual Bring	138	Actual Kerb	**138**
Limavady Borough Council	Unitary	0	Actual Bring	110	Actual Kerb	**110**
Lisburn Borough Council	Unitary	84	Estimated Bring	391	Estimated Kerb	**475**
Magherafelt District Council	Unitary	0	Previous Bring	300	Previous Kerb	**300**
Moyle District Council	Unitary	0	Estimated Bring	56	Estimated Kerb	**56**
Newry and Mourne District Council	Unitary	80	Actual Bring	179	Actual Kerb	**259**
Newtownabbey Borough Council	Unitary	0	Actual Bring	239	Actual Kerb	**239**
North Down Borough Council	Unitary	2,624	2006 Bring	298	Estimated Kerb	**2,922**
Omagh District Council	Unitary	0	Actual Bring	2	Actual Kerb	**2**
Strabane District Council	Unitary	0	Actual Bring	320	Actual Kerb	**320**
Total						**10,521**

Scotland

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA (Tonnes)	Bring Data Type	Total Kerbside Collection WCA/UA (Tonnes)	Kerbside Data Type	Total Tonnage Collected (Tonnes)
Aberdeen City Council	Unitary	220	Estimated Bring	721	Estimated Kerb	**941**
Aberdeenshire Council	Unitary	816	Estimated Bring	977	Estimated Kerb	**1,793**
Angus Council	Unitary	0	Previous Bring	316	Previous Kerb	**316**
Argyll and Bute Council	Unitary	112	Estimated Bring	353	Estimated Kerb	**465**
Clackmannanshire Council	Unitary	0	Actual Bring	353	Actual Kerb	**353**
Dumfries and Galloway Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Dundee City Council	Unitary	150	Actual Bring	160	2006 Kerb	**311**
East Ayrshire Council	Unitary	69	Actual Bring	0	Actual Kerb	**69**
East Dunbartonshire Council	Unitary	86	Estimated Bring	353	Estimated Kerb	**439**
East Lothian Council	Unitary	0	Actual Bring	262	Actual Kerb	**262**
East Renfrewshire Council	Unitary	47	Actual Bring	0	Actual Kerb	**47**
Edinburgh City Council	Unitary	120	Actual Bring	0	Actual Kerb	**120**
Falkirk Council	Unitary	0	Previous Bring	605	Previous Kerb	**605**
Fife Council	Unitary	462	2006 Bring	0	Actual Kerb	**462**
Glasgow City Council	Unitary	48	Actual Bring	222	Actual Kerb	**270**
Highland Council	Unitary	0	Estimated Bring	637	Estimated Kerb	**637**
Inverclyde Council	Unitary	72	Actual Bring	265	Actual Kerb	**337**
Midlothian Council	Unitary	0	Previous Bring	451	2006 Kerb	**451**
Moray Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
North Ayrshire Council	Unitary	67	Actual Bring	0	Actual Kerb	**67**
North Lanarkshire Council	Unitary	1	Actual Bring	0	Actual Kerb	**1**
Orkney Islands Council	Unitary	1	Actual Bring	292	Actual Kerb	**293**
Perth and Kinross Council	Unitary	65	2006 Bring	9	2006 Kerb	**74**
Renfrewshire Council	Unitary	0	Actual Bring	209	Actual Kerb	**209**
Scottish Borders Council	Unitary	0	Previous Bring	484	Previous Kerb	**484**
Shetland Isles Council	Unitary	20	Estimated Bring	47	Estimated Kerb	**67**
South Ayrshire Council	Unitary	1	Actual Bring	284	Actual Kerb	**285**
South Lanarkshire Council	Unitary	0	Estimated Bring	1,125	Estimated Kerb	**1,125**
Stirling Council	Unitary	1	2006 Bring	156	Actual Kerb	**158**
West Dunbartonshire Council	Unitary	200	Actual Bring	400	Actual Kerb	**600**
West Lothian Council	Unitary	0	Previous Bring	654	Previous Kerb	**654**
Western Isles Council (Eilean Siar)	Unitary	26	Estimated Bring	37	Estimated Kerb	**63**
Total						**11,956**

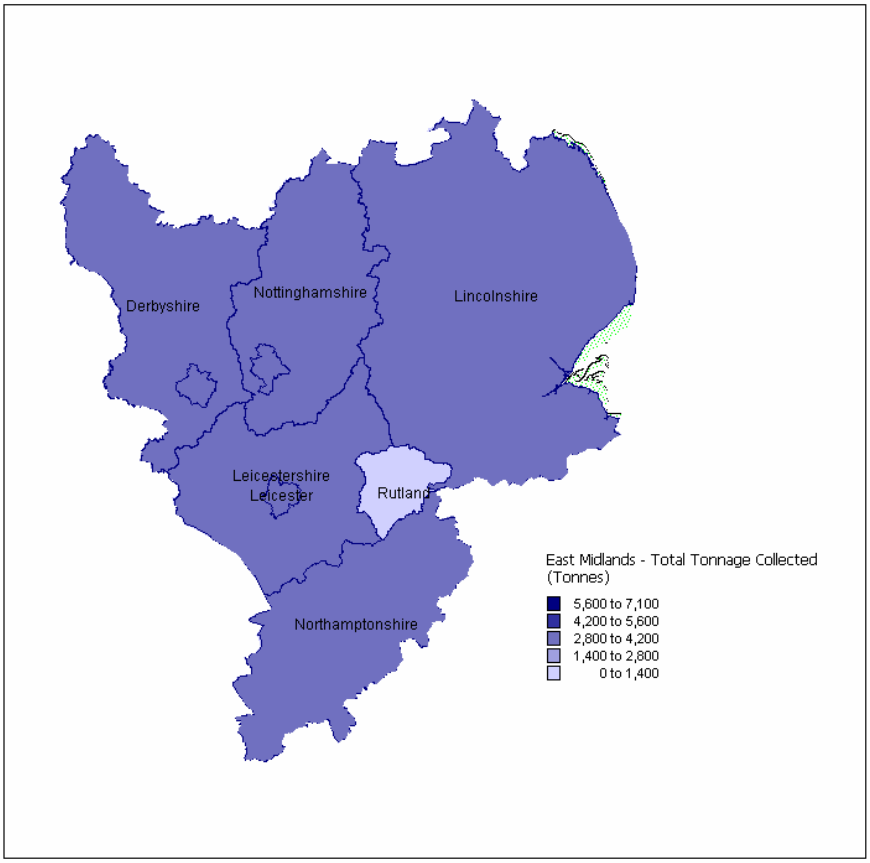
Wales

JPP Authority Name	JPP Authority Type	Total Bring Collected WCA/UA	Bring Data Type	Total Kerbside Collection WCA/UA	Kerbside Data Type	Total Tonnage Collected
Blaenau Gwent County Borough Council	Unitary	0	Previous Bring	298	Previous Kerb	**298**
Bridgend County Borough Council	Unitary	0	Estimated Bring	532	Previous Kerb	**532**
Caerphilly County Borough Council	Unitary	0	Actual Bring	633	Actual Kerb	**633**
Cardiff County Council	Unitary	0	Estimated Bring	1,197	Previous Kerb	**1,197**
Carmarthenshire County Council	Unitary	24	Actual Bring	193	Actual Kerb	**217**
Ceredigion County Council	Unitary	1,003	Actual Bring	575	2006 Kerb	**1,578**
Conwy County Borough Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Denbighshire County Council	Unitary	50	Actual Bring	57	Actual Kerb	**107**
Flintshire County Council	Unitary	0	Previous Bring	605	Previous Kerb	**605**
Gwynedd County Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Isle of Anglesey County Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Merthyr Tydfil County Borough Council	Unitary	0	Actual Bring	225	Actual Kerb	**225**
Monmouthshire County Council	Unitary	41	Actual Bring	0	Actual Kerb	**41**
Neath Port Talbot County Borough Council	Unitary	122	Estimated Bring	400	Actual Kerb	**522**
Newport City Council	Unitary	0	Actual Bring	1,166	Actual Kerb	**1,166**
Pembrokeshire County Council	Unitary	0	Previous Bring	450	2006 Kerb	**450**
Powys County Council	Unitary	111	Estimated Bring	176	Estimated Kerb	**287**
Rhondda Cynon Taff County Borough Council	Unitary	0	Actual Bring	1,771	Actual Kerb	**1,771**
Swansea City and County Council	Unitary	0	Actual Bring	0	Actual Kerb	**0**
Torfaen County Borough Council	Unitary	460	Estimated Bring	372	Estimated Kerb	**832**
Vale of Glamorgan Council	Unitary	0	Previous Bring	507	Previous Kerb	**507**
Wrexham County Borough Council	Unitary	116	Estimated Bring	682	Actual Kerb	**798**
Total						**11,766**

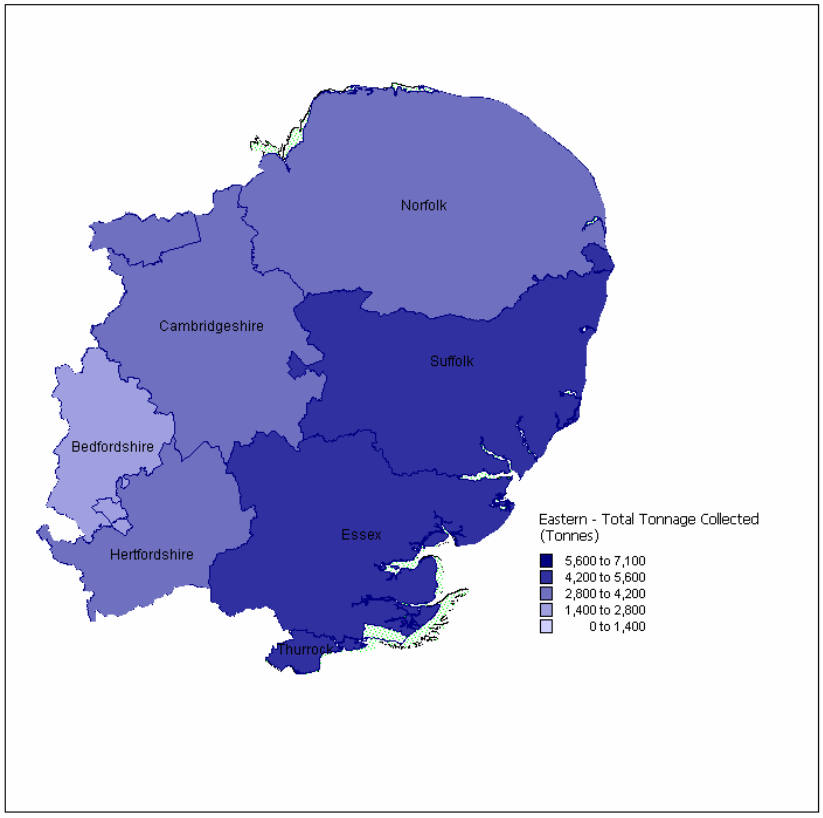
Appendix 2 – Regional Maps of Collected and Recycled Tonnages

England

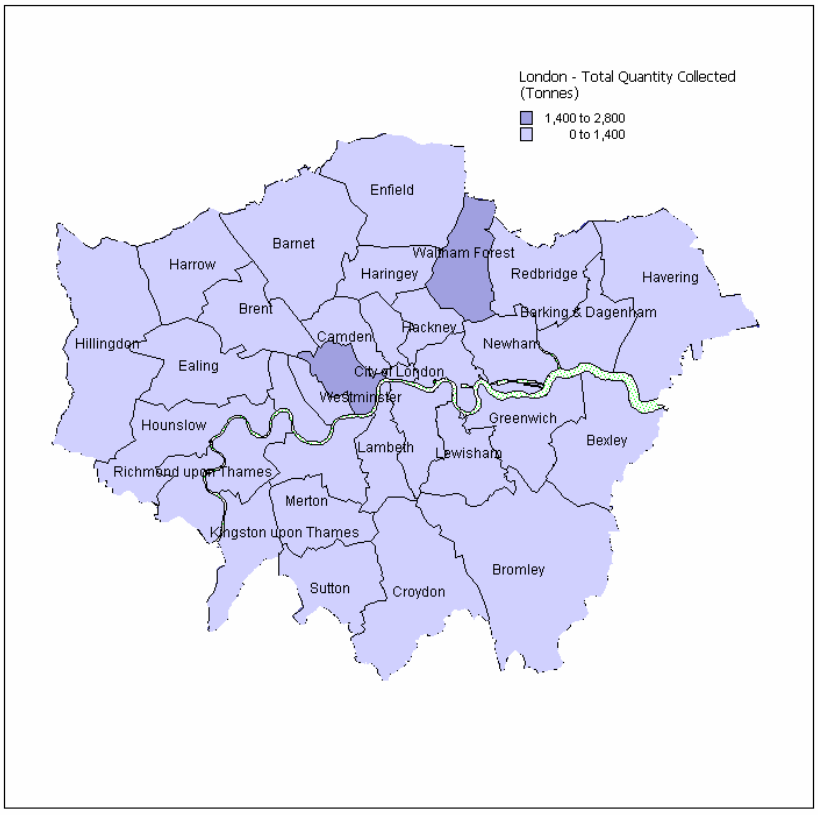
East Midlands



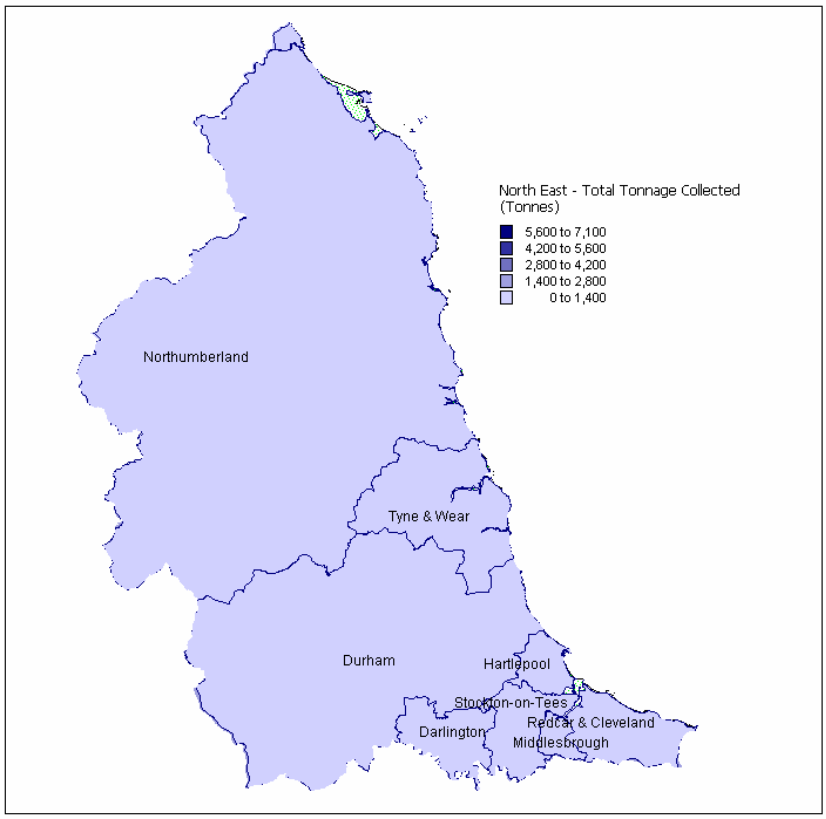
Eastern



London



North East



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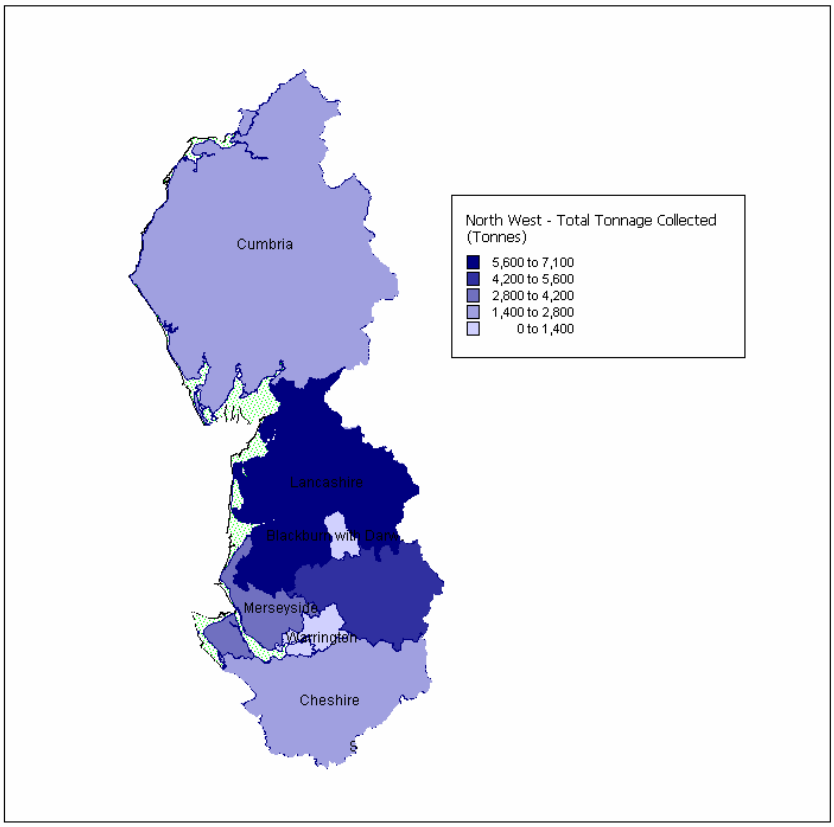
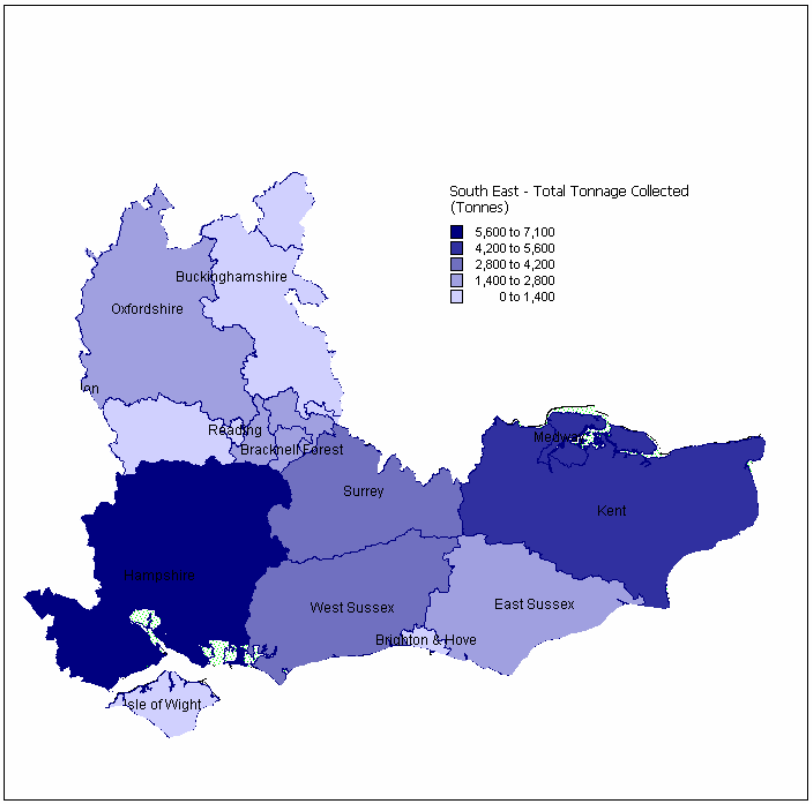
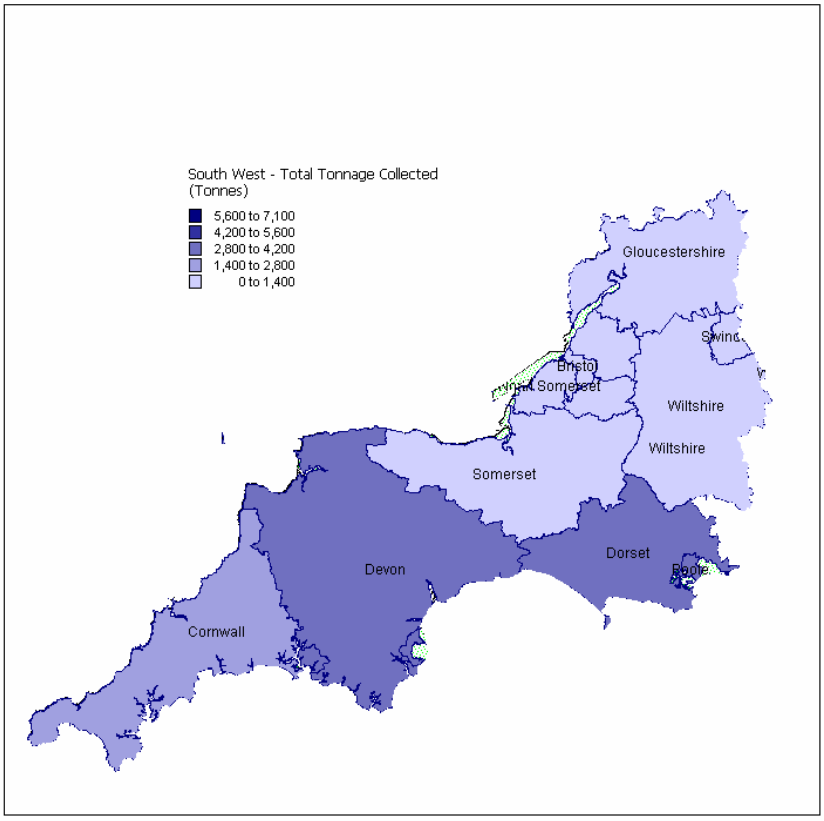
North West


North West - Total Tonnage Collected (Tonnes)
5,600 to 7,100
4,200 to 5,600
2,800 to 4,200
1,400 to 2,800
0 to 1,400
Cumbria
Lancashire
Blackburn with Darw
Merseyside
Warrington
Cheshire

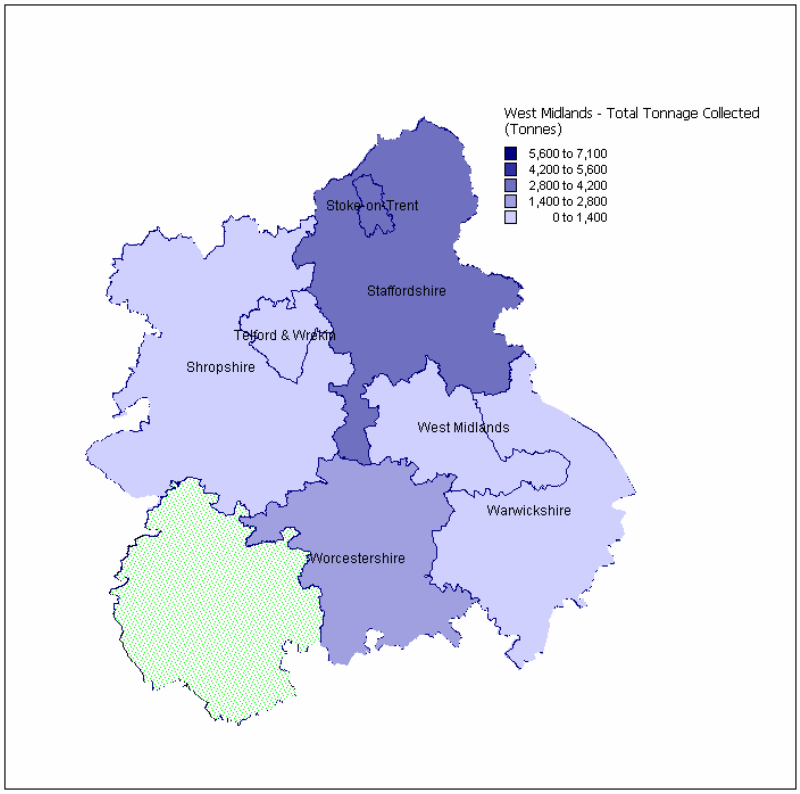
South East



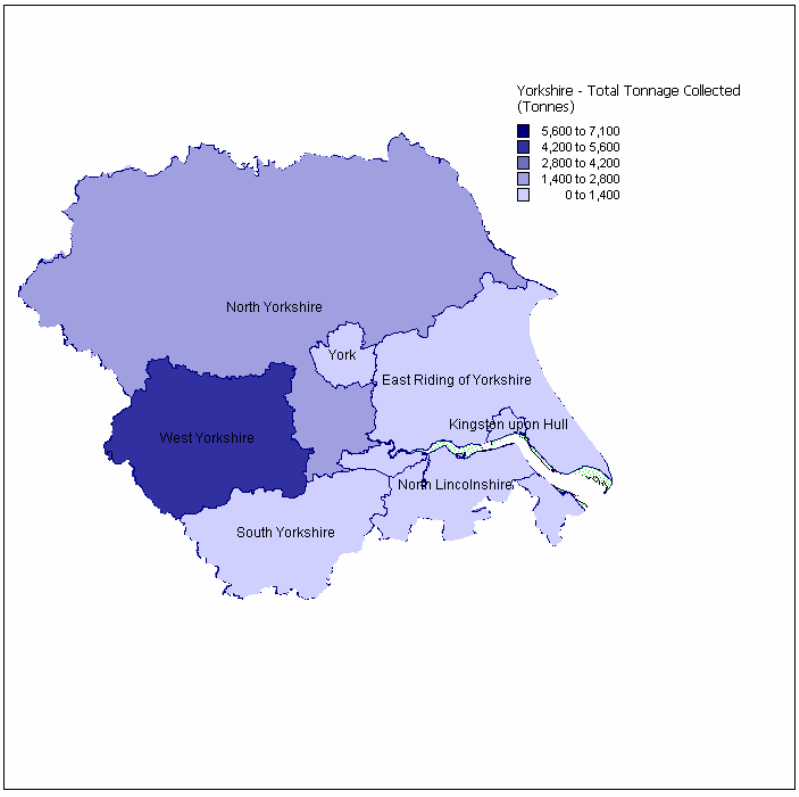
South West



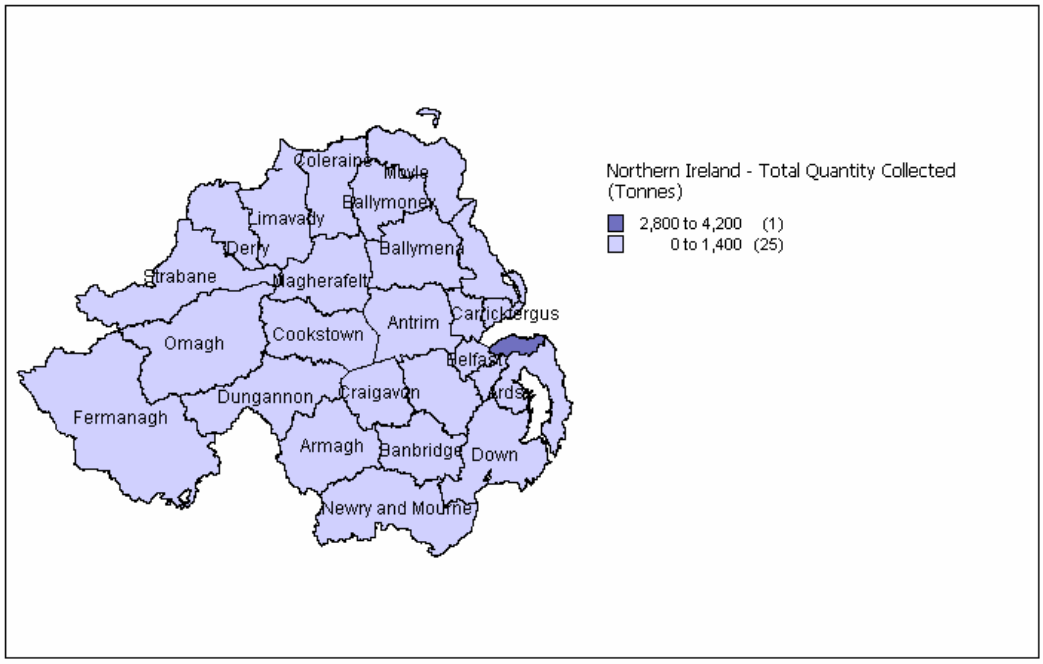
West Midlands



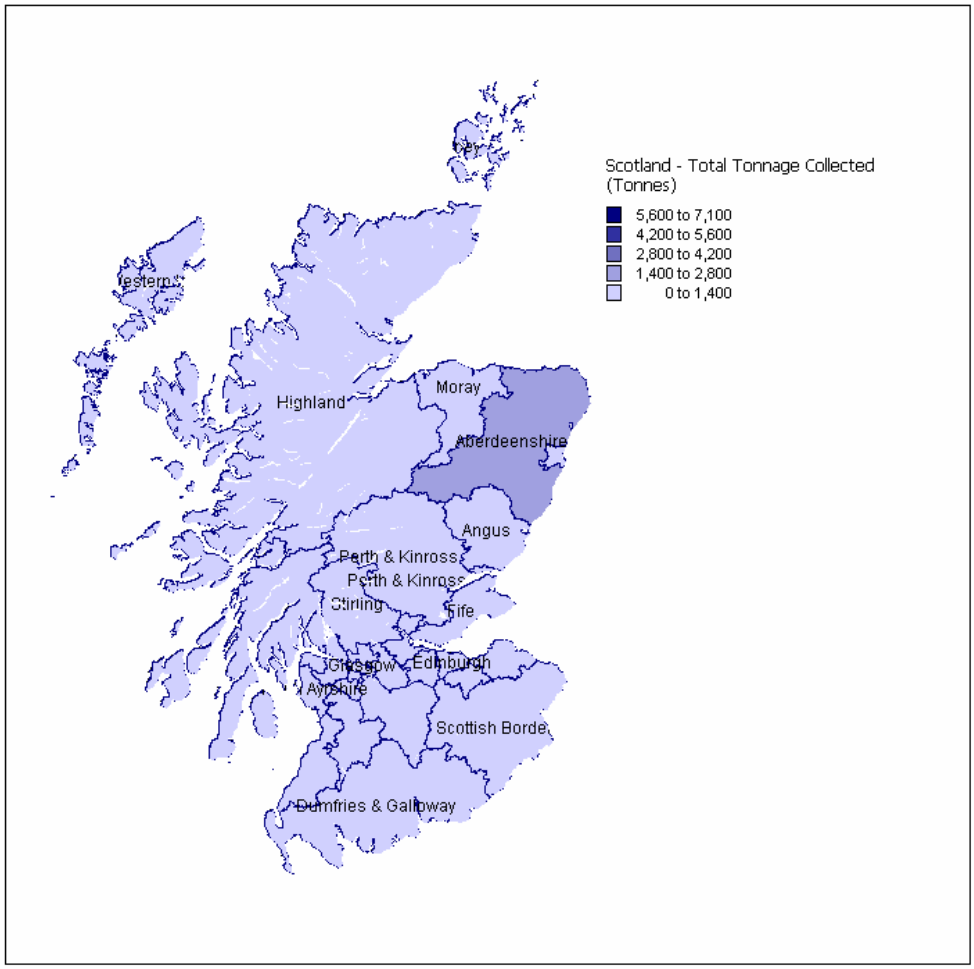
Yorkshire & Humber



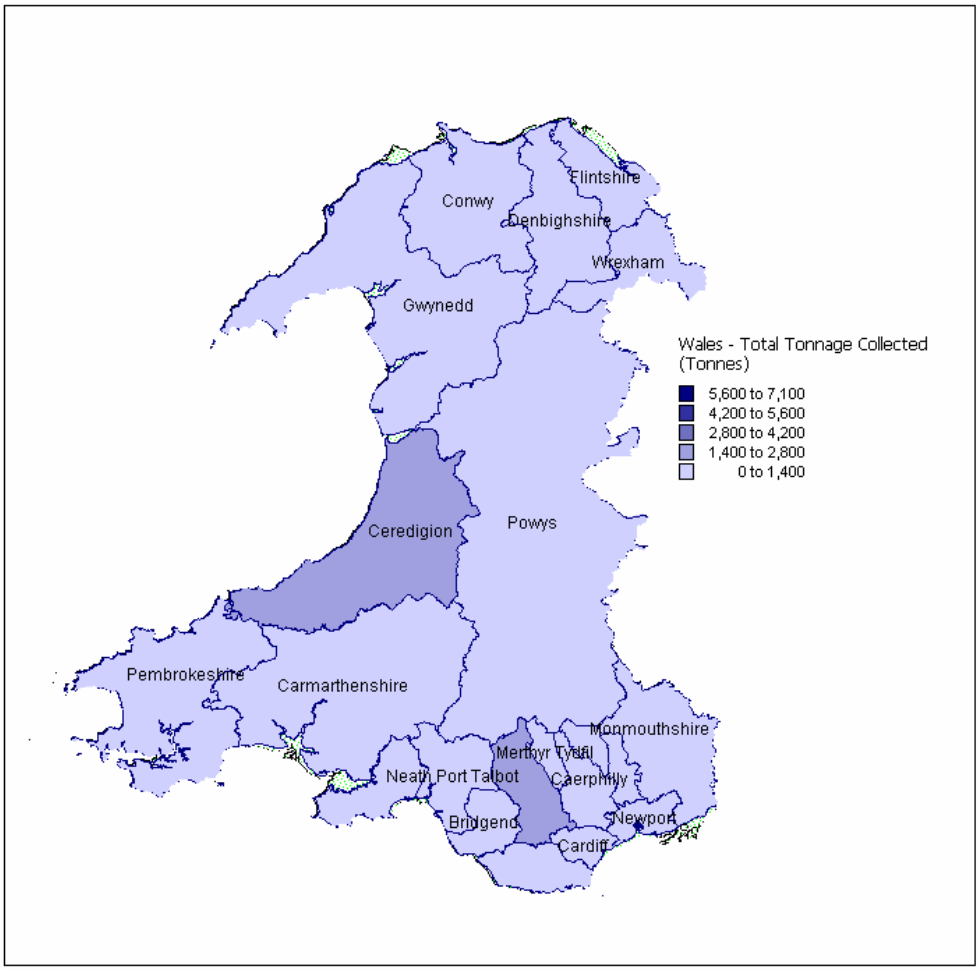
Northern Ireland



Scotland



Wales


Flintshire
Conwy
Denbighshire
Wrexham
Gwynedd
Wales - Total Tonnage Collected (Tonnes)
5,600 to 7,100
4,200 to 5,600
2,800 to 4,200
1,400 to 2,800
0 to 1,400
Ceredigion
Powys
Pembrokeshire
Carmarthenshire
Monmouthshire
Merthyr Tydfil
Caerphilly
Neath Port Talbot
Newport
Bridgend
Cardiff

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