

NEWS

RECYCLING OF USED PLASTIC CONTAINERS LIMITED

OVER 200 MILLION PLASTIC BOTTLES COLLECTED IN 1998

UP 50% ON 1997 COLLECTION FIGURE!

The annual RECOUP survey provides a unique overview of local authority plastic bottle recycling activity in the UK and planned growth. The 1998 survey was the sixth carried out by RECOUP. The results presented in this publication are based on the information generously supplied by collection scheme operators and local authority recycling officers in November 1998.

The survey results are comprehensive and informative, answering many important questions: How many plastic bottles were collected in the UK last year? Which new collection schemes were established in 1998? How does your local scheme compare to the national average for recovery efficiency or bottle banks per household? What growth is planned for the future?

The results provide an overview of the current UK situation for those with an interest in plastic bottle recycling and will also assist potential operators planning a collection scheme. What are the most widely used collection banks and kerbside containers? How many bottles can you expect to collect? Which are most popular - kerbside or bank collection schemes? - The RECOUP survey addresses these common queries.

For further assistance when planning a collection scheme please contact RECOUP.

- 40% of UK local authorities operate a plastic bottle collection scheme
- 10,500 tonnes of plastic bottles were collected in 1998 - over 200 million bottles
- There are over 3,300 plastic bottle collection banks
- More than 2.5 million households have a kerbside collection including plastic bottles

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KERBSIDE KOLLECTOR

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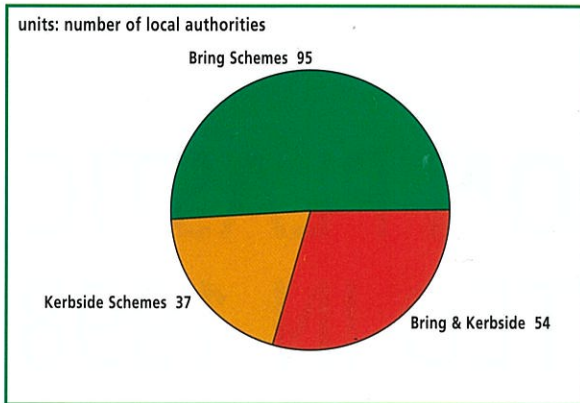


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The Results

Fig.1 Collection scheme types in use



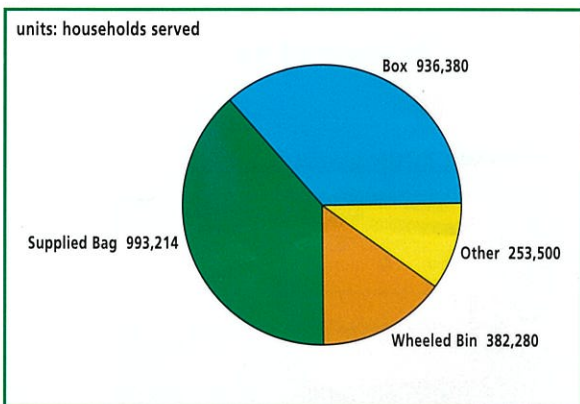
The 1998 survey revealed that there are now 186 plastic bottle collection schemes in the UK. Approaching 40% of local authorities now have collection facilities for plastic bottles within their area. Of these, 51% of all schemes rely solely on bank collection, 29% operate a combination of bank and kerbside collection while 20% of the authorities collect plastic bottles entirely from the kerbside (Fig.1).

There are now 3,354 plastic bottle collection banks in the UK on 2,275 sites. Over 2.5 million households are covered by a kerbside collection that includes plastic bottles.

A number of new schemes and new material reclamation facilities (MRFs) began operation during 1998 improving the infrastructure for plastic bottle recycling in the UK.

New schemes included: Rugby Borough Council, Antrim Borough Council, Monmouthshire County Council, Flintshire County Council and Aylesbury Vale Council. New MRFs included: Hills Waste MRF in Wiltshire, Onyx MRF in Portsmouth, Shanks & McEwan MRF in Bedford.

Fig.2 Collection containers used by UK kerbside collection schemes

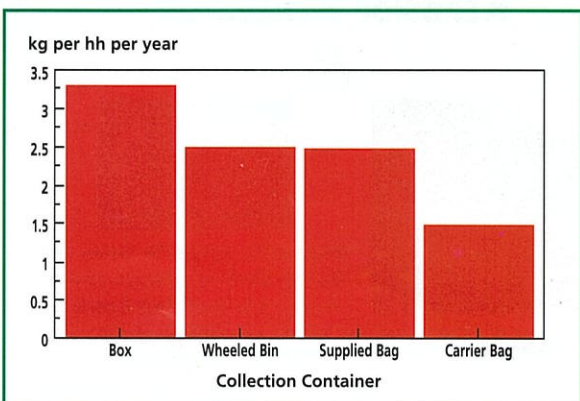


Of the 253 local authorities not collecting plastic bottles it was encouraging that 108 (43%) expressed an interest in talking to RECOUP about developing a collection scheme. A number of these local authorities already operate a kerbside collection scheme which plastic bottles could potentially be added to in the future.

Kerbside Collection Schemes

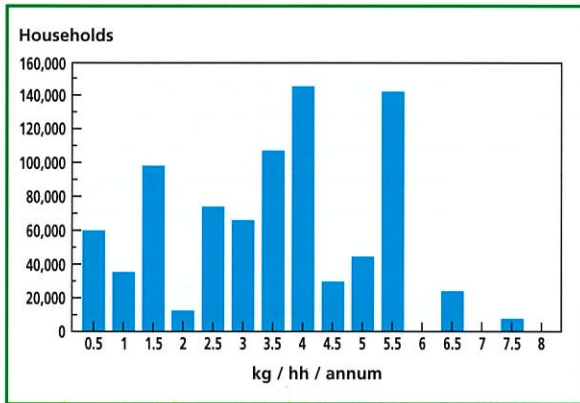
The most prevalent collection container used by schemes operating kerbside plastic bottle collection is the supplied kerbside bag closely followed by the kerbside box. 40% of UK kerbside collection schemes choose to use a supplied bag, 37% use a box and 15% use a wheeled bin. The remaining 10% of schemes make use of a variety of alternative containers such as baskets with handles for residents of flats or householder-supplied carrier bags (Fig.2).

Fig.3 Average mass of plastic bottles collected per household per year



The recovery rate is one important indicator of a scheme's performance. The survey results over the past two years indicate that the greatest recovery rates are achieved when a dedicated collection container is provided to users. The

Fig.4 Distribution of kerbside box collection performance

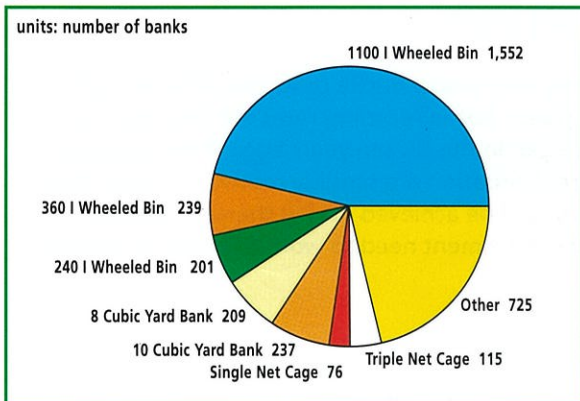


kerbside box continues to show the highest recovery rates (3.3 kg of plastic bottles deposited per household per annum) with supplied bags recording approximately 2.5 kg per household per annum. After corrections for missing scheme data, the 1998 wheeled bin is, we believe, close to that of supplied bags - approximately 2.5 kg per household per annum (Fig.3).

It is clear from the collection schemes' results that the choice of collection container is only one factor influencing the amount of material that is recovered. There is wide variability of performance between schemes using a similar collection system. Some schemes operating a kerbside collection, using a box, averaged as little as 0.5 kg of plastic bottles per household per annum and others 7.5 kg per household per annum - double the average (Fig.4). Increased and regular frequency of collection, sustained local promotion and a broad range of target recyclables can all contribute to higher recovery rates, although the precise interaction of these factors is not yet defined and requires further research. RECOUP continues to examine why some schemes perform significantly better than others.

Bring Collection Schemes

Fig.5 Bring bank types in use

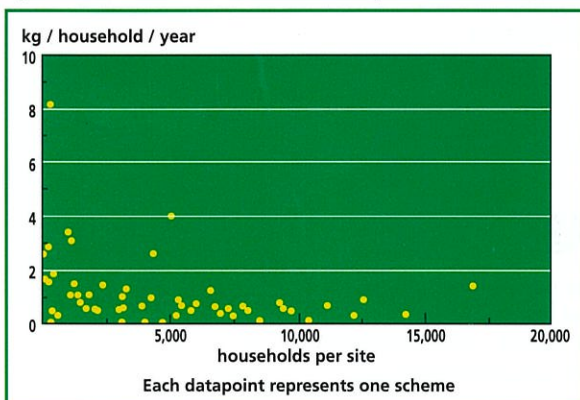


One of the principal scheme design choices, when establishing a bring collection scheme, is the choice of collection bank.

The 1,100 litre wheeled bin proved the most widely used collection container in the UK (Fig.5). There are currently 1,552 wheeled bins used for the collection of plastic bottles (46% of all container banks). Smaller wheeled bins (360 and 240 litre) accounted for 13% of the banks and 5% were net cage units. Other containers e.g. converted skips, recycling pavilions, the original RECOUP 'Bertie' bottle banks and a selection of 'home-made' containers accounted for 22% of all containers used.

Quantity of plastic bottles collected by bring schemes as a function of the number of households per site

Fig.6



Site density has also been identified as an important factor influencing recovery rates. Schemes recovering more than 1-2 kg of plastic bottles per household per year have a minimum of 1 site for every 5,000 households (Fig.6). Retail car-park sites proved extremely good locations for high performing collection banks. Local promotion and ease of site accessibility are also recognised as important factors, which affect scheme performance.

RECOUP Comment

Plastic bottle collection levels rose during 1998 as a result of the continuing commitment of local authorities and recyclers in the UK. New funding from producer responsibility compliance schemes, most notably Valpak, supported the prices paid to collectors of baled bottles and enabled extra investment by recyclers during the year. The average price for baled plastic bottle material during 1998, until mid-December, remained stable at £140.

During the final quarter of 1998 the legally required plastic packaging recycling target appears to have been achieved and exceeded. The impact of this was a sudden reduction in the sales value achievable for packaging recovery notes (PRNs), as demand fell. As a consequence the prices paid for baled bottles reduced significantly at the year end, in line with reducing PRN values. With the expectation of an improved position in 1999, many schemes opted to wait until new contracts were established in early 1999 before shipping material.

In January 1999, increased recycling targets for 1999 and 2000 were announced. These will be a boost to the recycling industry; however, analysts believe that many schemes and reprocessors will be faced with serious financial difficulties during the first half of 1999. This is because PRN prices may be slow to recover from 1998's year-end low. RECOUP believes that cautious PRN pricing in early 1999 is a short term approach, which risks serious longer term disbenefits. Analysis suggests that, on the basis of current economics, there will be a significant underachievement of the plastic recycling targets in 1999 and 2000. Financial investment is required in the early stages of 1999 to create necessary growth.

Without additional support, it is likely that plastic bottle collection schemes will close during quarter 2 of 1999 and plastic bottle recycling rates will fall - the first projected decline since collections began in the UK ten years ago. If the financial and logistical challenges of the current situation are sensibly resolved in early 1999, RECOUP believes that modest growth will be achieved during the year. Recyclers, collectors, obligated businesses and Government need to work together to achieve this.

The research and development of plastic bottle collection schemes documented here are only two aspects of RECOUP's role. RECOUP's work is made possible by the financial support of RECOUP members. RECOUP members benefit from regular information and events, and are recognised as leading supporters of household plastic packaging recovery. If you would like more information on becoming a RECOUP member contact the address below.



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