

# Kerbside Recycling – Experiences from authorities receiving funding from the National Waste Minimisation and Recycling Fund

Appendix X: Gloucester City Council

# Gloucester City Council

## Introduction

Gloucester City Council (GCC) received Round 2 funding to extend the existing paper collection from 16,000 households to 29,000 properties and to include glass, cans, textiles and plastic milk bottles. Prior to the introduction of the collection, GCC achieved a recycling rate of 8% in 2002/03 through a network of bring sites and its kerbside collection of newspaper and magazines. In 2004/05, with the extended collection, its BVPI 82a rose to 10.7%

This report describes the detail of the collection and its performance together with a discussion of the lessons learnt in implementing the collection.

## Description of the collections

### Recycling and refuse collections before the Round 2 funding

GCC comprises approximately 48,000 households all within the city environment within a 4 mile radius. Some communities live in quite deprived situations and ethnic minority households make up 7-8% of the population. Waste and recycling collections are carried out by GCC's DSO. Refuse is collected weekly from 240L wheeled bins (some properties still use a black sack system where wheeled bins are not appropriate). Some households have a second bin. Side waste is collected. Refuse is taken to the Hempstead Landfill only 1 mile outside the city.

In 1995 a pilot scheme collecting recyclables (newspapers, magazines, glass and cans) was introduced to two areas of the city and a community group, SWING, collected newspapers and magazines monthly from other parts of the city. By 1996, paper was collected fortnightly from all areas by the DSO. Boxes were provided although most households used carrier bags. A transfer station was built in 2002 in order to bulk and bale paper collected through the kerbside schemes.

A questionnaire was sent out in November 2000 to households on the fortnightly kerbside box scheme and 3,200 replies were received. The results showed that increasing the frequency of box collection to weekly would be preferred by 74% of people. A weekly paper collection trial conducted in January 2001 also showed that weekly collections were popular with households as storage of materials does not present such a problem and there is less confusion over collection dates. These findings, together with GCC's aim to improve its recycling rate, led to GCC's bid for Round 2 funding.

### Collections funded from Round 2 NWMRF

Round 2 funding of approximately £700k was awarded to GCC to implement a weekly kerbside sorted collection of dry recyclables to 29,000 households. The funding covered the costs of six vehicles, 13,000 55L boxes with lids, staff costs, material processing facilities and other revenue costs.

Newspaper and magazines can be placed inside the box or collected in bags/bundles placed alongside the boxes. Steel and aluminium cans, brown, green and flint glass, plastic milk bottles and textiles and shoes are collected in the 55L boxes. Collection crews sort the materials at the kerbside into stillage vehicles that are then taken to GCC's transfer station/MRF for bulking and baling. Steel and aluminium cans are separated at the MRF.

## **Kerbside Recycling Experiences**

### **Roll-out of the collection**

The Officer interviewed did not join GCC until after the end of the implementation of the project and the other Waste Management Officer is on long term sick leave, thus the precise details of roll-out were unavailable. It is understood that there was a delay in rolling-out collection, due to procurement problems securing the vehicles. The collection was rolled out between July and August 2003.

GCC used existing resources to roll out to a further 32,400 households. One expansion occurred in November 03 and a further expansion occurred in March 04. Funding was received through a partnership bid to roll out the collection scheme to the remaining households and provide special mini recycling centres for flats. Subsequently, the scheme has grown further still, funded by a Shropshire Gloucestershire Partnership bid, such that by November 2004 all 48,000 households in the city are served by the kerbside collection.

It is understood that the project was managed by the Waste Manager, a Recycling Officer and the Depot Manager.

### **Communications and promotion of the collection**

Information on the communications used during the project roll-out has been difficult to find due to staff changes in the authority. It is understood that a standard Gloucestershire County Council A5 leaflet entitled "Get It Sorted" was distributed two weeks before box delivery. The "Get It Sorted" campaign was organised by a separate company, of the same name and funded for two years with Landfill Tax credits. Stickers were used on the original paper collection boxes when the project was rolled out, informing householders of the range of materials they could now recycle.

GCC has organised roadshows in the city centre and has set up an information stall for passers by. At other events GCC uses a vehicle with displays.

GCC issues press releases to the local newspapers that have been supportive of recycling campaigns recently. GCC also takes out advertisements promoting the box scheme in the local press. Unfortunately not all parts of the city are covered by the newspapers. The Officer interviewed felt better results promoting schemes can be achieved using leaflets but acknowledged that sometimes the distribution of leaflets is more difficult than advertising in the press.

Collection crews were trained prior to the start of kerbside collection; however, their training mainly covered operational issues. The work load of operatives is too high to allow them to talk to the public at any length about recycling issues.

Householders can request an additional recyclables box that is issued automatically. Requests for third boxes are checked by the Recycling Officer.

Since the introduction of the kerbside dry recyclables collection all, except the largest, bring sites have been removed.

## Performance of the collection

The collection was launched in June 2003 and between June and September 2003, 607 tonnes of dry recyclables were collected from 29,000 households through the kerbside scheme. Extrapolating the data, this is equivalent to approximately 84kg/household/year. Expansion of the scheme then commenced so it is difficult to evaluate the results. However, in the first 6 months of 2004/05 approximately 1,991 tonnes was collected from 32,400 households, equivalent to 122 kg/household/year. During the second 6 months of 2004/05, 2,479 tonnes of material were collected from 48,000 households, which is equivalent to 103kg/hhd/yr. This trend in quantities collected perhaps reflects the establishment of the initial scheme followed by a reduced performance as harder to reach properties are added to the collection.

The total tonnage recycled by GCC, including bring tonnages, was 5,534 tonnes in 2004/5 which is equivalent to 115kg/hhd/yr. GCC's BVPI 82a has risen from 8% in 2002/03 to 10.7% in 2004/05.

The total waste arisings in 2004/05 were 51,669 tonnes, an increase of 1,903 tonnes since 2003/04.

Participation in the scheme has been studied along the guidelines issued by WRAP. Visual inspections have led to estimates ranging from 15% participation in one area of the city, where only 9 households out of 500 set out recyclables. This rate rose after a dedicated communications campaign (focusing on a reward incentive) to approximately 90 households participating. In other areas of the city there is 85% participation, with an average across the city of 60%.

If participation rates at an average of 60% are taken into consideration, the quantity recycled from 48,000 properties in 2004/05 is equivalent to 172kg/household/year.

## Standard collection costs

It is difficult to compare collection costs between authorities for many reasons including contracting out versus in-house service, lease versus purchase of capital equipment, accounting practices, etc. Therefore, for the purpose of the case study analysis, Kerbside Analysis Tool (KAT) has been used to estimate a standardised cost for each collection. It should be stressed that the use of KAT is to overcome difficulties in comparing a service that is operated and paid for in a number of different ways across authorities and not as a reflection of perceived inaccuracies in the audited or declared costs for individual authorities.

KAT uses information on the infrastructure actually employed to carry out the collection, for example the number and type of vehicles, and applies a unit cost, uniform depreciation and financing. **The standard costs calculated by KAT are not the same as the price paid to a contractor for operating the service or the same as the costs that appear in the audited accounts of the authority.** However, they enable a fair comparison between authorities of the costs of running kerbside collections.

## Kerbside Recycling Experiences

Standard costs have been estimated for all the kerbside collections operating in the authority including refuse collection, regardless of if they were funded by Round 2 or not. It is sometimes impossible to separate out the elements funded by Round 2, for example if it only covered part of a collection or if it replaced an existing collection. Therefore, the cost analysis can only be undertaken at an authority wide level. Refuse collection costs are included as well as those for recyclables collection because it provides a useful base reference against which to compare the costs of the recyclables collections, refuse collection costs not being uniform over the country.

The cost analysis is for the financial year 2004/05 and can therefore be directly related to the performance above.

The standard collection costs for the refuse and kerbside collections in GCC are presented in Table 1. All the costs are **gross** i.e. do not include any benefits from the sales of materials or from the receipt of recycling credits if payable.

**Table 1:** KAT standard gross collection costs for household waste collected at the kerbside

Collected stream	Round 2 funding	Total households served	Collection frequency	Tonnes collected 04/05 (T)	Collection cost per tonne (£)	Collection cost per household (£)
Refuse	–	48,000	Weekly	46,077	27	26
Dry	29,000	48,000	Weekly	4,957	144	15
<b>Total</b>		<b>48,000</b>		<b>50,546</b>	<b>39</b>	<b>41</b>

When considering the costs presented in Table 1 it is essential to remember that they cover the collection of household waste/recyclables only i.e. trade waste is not included, and additional costs for spare vehicles, depots and other support costs relating to collection are not included. Post collection costs, such as gate fees for refuse, MRF processing and composting, and ancillary costs such as for promotion, education, call centres and communications are also not included. Depending on the extent of these facilities and activities, and also the level of recycling credits or sales revenues, the standard KAT cost may be lower or higher than the audited accounts and a direct comparison is impossible with BVPI 86.

### Lessons learnt

As stated before, due to staff changes at GCC, it was not possible to gather first hand information on the roll-out of the collection, however, the Officer interviewed provided the following information on what they understood had worked well during implementation:

- lessons learnt from the initial roll-out enabled the subsequent phases to be rolled out efficiently;
- good recycling rates have been recorded, the Officer felt this was due to better awareness of recycling issues even in areas where GCC did not expect good results;
- roll out went according to plan, apart from the 8 week initial delay due to vehicle supply problems; and

- Officers have learnt from the roll-out of the dry recyclables collection and to implement the new garden waste collection (see below) they have drip fed information to householders and started planning earlier.

Some of the less positive aspects of the collection are:

- boxes were delivered to all householders but many of them misplaced them so GCC has had to replace many boxes which is expensive;
- leaflets on the dry recyclables collection went out too far in advance of box delivery and the start of collection because of the delay in procuring boxes and vehicles, which caused householders some confusion and led to a lower recycling rate than expected; and
- more promotion is required to increase participation, and research clearly shows that if there is not a continual programme to promote recycling awareness, participation/recycling rates may decrease or lead to problems with contamination.

## **Developments following the Round 2 funding**

GCC has a local recycling target of to achieve 18% recycling by March 2006. Recently Members agreed to introduce and enforce a one bin, closed lid, no side waste policy to 26,000 households in the City which will be implemented with the help of a new Enforcement Officer. Some households have more than 1 bin so although Officers believe this policy is essential it will have to be managed sensitively may be difficult to achieve. Waste arisings are currently growing at around 3% per year.

This policy will be introduced at the same time as the new fortnightly garden waste collection service which is due to start in October 2005 serving 26,000 properties. The targeted properties have been selected with regard to their participation in the dry recyclables scheme and their proximity to the Hempstead Household Waste Recycling Centre, with those nearby excluded. Properties with the most potential for garden waste have been selected. Garden waste will be collected in 2 x 120L reusable sacks on Mondays to Thursdays and taken to the open windrow composting facility at Hempstead Landfill and the product used for landfill restoration. Refuse collection will continue to be weekly, although with the new policies on side waste etc.