

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

Appendix IX: Forest of Dean District Council

Forest of Dean District Council

Introduction

Forest of Dean District Council (FoDDC) received Round 2 funding to extend the existing pilot garden waste collection to an additional 24,000 households and also to extend the range of dry recyclables collected, to include glass and cans, to all 34,000 households across the district.

Prior to the introduction of the Round 2 funded collections, FoDDC's combined BVPIs 82a and b was 11.7% in 2002/03 through the collection of newspapers and magazines, the bring recycling network and pilot garden waste collection. It has achieved combined BVPI 82a and b of 32.8 % in 2004/05.

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

The FoDDC is in Gloucestershire and is predominantly rural in nature with three main centres of population. The total population in the district is 81,000 and there are approximately 34,000 households. Refuse is still collected weekly in sacks or dustbins, by the authority's contractor Biffa and either taken to Hempstead landfill near Gloucester or to a Waste Transfer Station in Lydney.

In the early 1990s, a number of bring sites were established in the larger towns which collected glass, cans, paper and textiles. By 1995 FoDDC had 42 bring sites, across the district, ranging from large skips in the main towns to 1100L bins at smaller sites. In 1996, FoDDC established a separate monthly collection of newspapers and magazines, initially serving half the district. The collection was then rolled out across the whole district moving to a fortnightly collection in 1998. Paper was collected in 38L boxes and sent to Aylesford Newsprint for re-processing.

Garden waste was not collected by the Authority so FoDDC organised a campaign to increase home composting between 1996 and 1999 and used initially an opt-out scheme for the delivery of home composters. Data were not collected on the numbers of households provided with home composters but Officers estimate that approximately 13,000 households (40%) in FoDDC have home composters.

A pilot scheme was established in August 2002 to collect garden waste from 10,000 households in translucent, disposable sacks. The trial was divided in to different geographical areas to cover properties in rural areas and towns and different socio-economic backgrounds. The trial was especially popular in the towns and the sacks of garden waste were often very heavy! Householders put out refuse weekly and garden waste is put out on the same day fortnightly. Garden waste was collected by the dedicated crews first, with operatives splitting the sacks and removing them from the back of a refuse freighter. The split sacks were collected into a black sack and left for the refuse crews to collect later.

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FoDDC worked with Gloucestershire County Council (GCC) and the other WCAs on a joint waste management strategy that was agreed in 2000 that set high recycling targets. The authority decided to submit two bids for Round 2 funding, one for dry recyclable collection and one for garden waste collection, in order to help it meet these challenging targets, based on the findings of the garden waste trial and separate paper collections.

Collections funded from Round 2 NWMRF

Round 2 funding of over £130k was awarded to FoDDC to introduce a garden waste collection scheme to 24,000 households and a kerbside sorted collection of newspapers and magazines, mixed cans and glass to 34,000 households. The funding covered the costs of 27,200 240L wheeled bins for garden waste and 34,000 55L boxes with dividers. The funding also covered revenue costs for vehicle leasing, staff, publicity and a rented transfer/bulking facility.

Garden waste and dry recyclables are collected on alternate weeks. Refuse is collected weekly. Garden waste and refuse are collected using RCVs and the dry recyclables are sorted into Kerbsiders. As the dry recyclables collection replaced the existing paper collection, for which residents already had a 38L box, they were provided with one additional box for the glass and cans. The glass is currently collected mixed, but the option exists to carry out some colour separation if markets make it advantageous to do so.

The garden waste is transported to an on-farm, open windrow composting facility operated on behalf of GCC at Rose Hill Farm, Dymock, Gloucestershire. Recycling credits are not paid to FoDDC and the authority does not receive any income from the sale of the material as it is simply delivered to them under their disposal contract. However, the gate fee for composting is paid by GCC. Garden waste is collected 12 months of the year. Garden waste is still collected in sacks from 200 residents who have access problems or are unable to manage the bin due to ill health or disability.

FoDDC's plans to include textiles in the dry recyclables collection have been put on hold. Dry recyclables are taken to a bulking facility in Lydney that has been rented until March 2006. Materials are then bulked before being transported as follows:

- Mixed glass to Berrymans
- Paper to Aylesford
- Cans are bulked by BIFFA, before being transported to Sims Metals, Cinderford where they are separated (aluminium and steel) for reprocessing.

FoDDC receives on average £55 per tonne income from the sale of materials, which is split roughly as follows, glass £2/ tonne, cans £20/ tonne and paper £32/tonne, plus recycling credits.

Householders can provide additional boxes for the collection of dry recyclables but additional boxes are not provided by FoDDC.

Roll-out of the collection

On April 1 2003, the authority commenced an opt-in collection scheme of garden waste, despite the fact that many households had not received their separate wheeled bin so sacks were used initially for some properties. Delivery of the 240L bins commenced in March 2003 and the majority of households who had opted-in to the scheme had bins by June 2003. Delivery of the garden waste bins was sub-contracted by Schaeffer, the bin manufacturer, to a third party. Schaeffer requested that FoDDC staff and a member of the collection crew were available to assist with the delivery process, this was to ensure the rounds were fully covered and that any questions could be answered during the delivery. A database was created round by round and street by street for each household that had requested a bin.

Delivery of the bins was extremely slow due to the very rural nature of the district and the 'opt-in' making it necessary to identify specific addresses, with sometimes only 17 bins being delivered per day. Many rural properties had no name signs or no house numbers displayed. In many instances, post delivery staff that were seen during the delivery process were contacted to help locate properties. By the end of July 2003 18,000 of the 24,000 purchased bins had been delivered. Now, 25,000 households have garden waste bins and the number continues to grow, even though FoDDC now make a charge of £20 for each bin. FoDDC grass cutting staff are now responsible for bin delivery.

The roll-out of the garden waste project was mostly organised by the team of two waste management officers. The difficulties with bin delivery meant that the street wardens also assisted with this process.

Boxes for the glass and cans collection were purchased in March 2003. The vehicles were available from 1st September 2003 when separate collection commenced.

Learning from the difficulties encountered during garden waste bin delivery, FoDDC prepared maps, lists, routes and other materials to aid box delivery. The delivery was also facilitated because the collection is not an 'opt-in', all residents being provided with the service. Blackwall, the box manufacturer, sub-contracted the delivery of boxes to a third party and paid Biffa, the refuse collection contractor to supervise box delivery. Delivery of the boxes was undertaken in July and August 2003 and the process was overseen by FoDDC's street wardens. Unfortunately, the third party employees were rude and presented a poor association with FoDDC so the authority requested that the third party cease box delivery. The sub-contractor delivered boxes to about half of the district in 1 month and Biffa delivered to the difficult-to-reach rural areas in just 14 days. A leaflet delivered with the boxes detailed the materials that can be collected in the boxes and there was also a collection calendar. Boxes were delivered up to 6 weeks prior to the start of separate collection.

The roll-out of the dry recyclables collection was easier than for the garden waste collection. Two additional team members joined the team of 2 waste management Officers. Biffa provided an additional staff member to aid the delivery of the boxes.

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Communications and promotion of the collection

In January 2003, each household was sent a letter from FoDDC's Chief Executive stating that the garden waste collection was due to start and requesting householders who wished to participate to return forms by 31 January 2003. All of the bins are marked on their lids to indicate which types of waste are acceptable and which are not. A series of press adverts was utilised to raise awareness of the scheme, which over a six-week period gave the details of the scheme and how residents could request a bin.

Contaminated bins are not collected and stickers are used to inform householders why this is the case. Householders are given the opportunity to remove the contaminating item so that the bin can be emptied a fortnight later, or to dispose of the waste appropriately. If the contamination problem persists then the bin is taken away from that household, however in general there is little or no contamination.

Prior to the start of multi-material collection, FoDDC advertised the changes to waste collection using adverts in local free newspapers and the authority's website. Information leaflets and a collection calendar were delivered with each recyclables box.

FoDDC finds it is difficult to post information to all householders because of the different postcodes in the area (e.g. Monmouth, Gloucester and Chepstow). A roadshow to kick start the collection was held in August 2003 and featured street entertainers.

FoDDC now produces an environmental calendar that is funded by advertising. All households receive this calendar once a year. Twice a year FoDDC sends out a newsletter on all of the council's areas of responsibility including recycling. FoDDC's website also features recycling information.

Stickers similar to the ones used on the garden waste bins are also used on the recyclables boxes. As for garden waste contamination stickers, there are options for crews to highlight different options to alert householders to the specific contamination problem.

Performance of the collection

The collection dry recyclables started in September 2003, and the collection of garden waste started in April. In 2004/05 a total of 4,517 tonnes of dry recyclables were collected from 34,000 households which is equivalent to 132kg/hhd/yr. It should be noted that tonnages of materials collected at bring sites are included in these figures. Adjusting for bring tonnages, an estimated 3,684 tonnes of dry recyclables were collected in 2004/5 from 34,000 households which is equivalent to 108kg/ household/yr. Also as FoDDC already collected paper from the kerbside, not all of the dry recyclables represent additional recycling. Officers estimate that an additional 1,497 tonnes of material were collected in 2004/05, equivalent to 44kg/hhd/yr.

Garden waste tonnages collected in 2004/5 were 7,351 tonnes from 24,000 households which is equivalent to 306kg/hhd/yr.

A participation study has been carried out but the results were not available at the time of interview. Officers estimate that participation in the dry recycling scheme is between 55% and 60%.

Overall, the collections are estimated to have contributed approximately 21.1% to BVPI 82a and 82b, based on comparisons between 2004/05 and 2002/03.

The total quantity of waste arising has risen from 29,056 tonnes in 2002/03 to 36,249 tonnes in 2004/05, equivalent to 25% over the two years. This increase could be due to the introduction of collection of garden waste that had not been previously collected.

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.

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 FoDDC 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	–	34,000	Weekly	24,339	33	21
Dry recyclables	34,000	34,000	Fortnightly	3,684	102	11
Garden	24,000	24,000	Fortnightly	7,351	60	18
Total		34,000		35,199	47	43

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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

Overall, Officers feel that the collection has been well accepted and is successful. They are delighted that they have exceeded the local recycling target one year ahead of schedule. In particular, Officers felt the following aspects of the garden waste project went well:

- 95% of the bins had been delivered by the end of April 2003;
- elderly householders are very pleased with the garden waste scheme as it is often difficult for them to dispose of garden waste without resorting to hiding the waste at the bottom of a refuse bin;
- collection crews were helpful and answered householders questions and acted as ambassadors for the scheme;
- contamination rates have been very low resulting in no rejected loads;
- Members supported Officers when the scheme started, although some Members are less positive about the scheme now;
- the scheme has grown and Officers feel that it does not need any additional promotion;

Other elements of the garden waste scheme went less well:

- delivering the bins was rushed and extremely stressful, one Officer called it a "horrendous time" which Officers consider was due to underestimating how long it would take to deliver bins in such a rural area and the difficulty in locating some properties;
- there was inadequate staff to field the huge number of phone calls which doubled during bin delivery and no one available to analyse the nature of the calls although additional administrative staff were provided;
- the project ran with too few staff for delivery or for project management;
- a smaller vehicle for delivering bins to remote areas down narrow lanes would have been useful; and
- finding properties for bin delivery was extremely hard and it may have been useful to have had help from the Parish Councils.

Positive elements of implementing the dry recyclables collection are:

- householders like the separate collection which makes recycling easier;
- employing additional members of staff made running the project much easier than implementing the garden waste collection;
- the scheme works well and achieves good recycling rates;
- Officers feel that the collection offers good value for money, costing roughly £1 per household per week for the two recycling schemes and the collection of residual waste; and
- box delivery was slow initially but worked much more smoothly once Biffa were responsible for delivery.

Officers felt that the following parts of the dry recyclables project went less well:

- access in rural areas can be very difficult so FoDDC now use a caged Transit vehicle for four mini-rounds serving 500 properties and occasionally for green waste collection in sacks;
- the Blackwall boxes shatter easily and seem less robust than ones manufactured by Taylor which FoDDC purchased recently to assess the robustness of different manufactured products.
- a recent survey revealed that householders will state that they set out their recyclables regularly even though participation rates for their area are very low, which means that interpreting results of these types of studies is difficult.

Developments following the Round 2 funding

Cardboard collection is to be trialled from 1,500 households already served by the separate garden waste collection. All types of cardboard will be included with garden waste. Stickers have been printed and Biffa's crews will stick these on the relevant bins to promote this new service.

GCC are in the process of agreeing various waste treatment contracts. It is hoped that FoDDC will be able to send kitchen waste for in vessel composting by August 2006. Once this has been agreed, then kitchen and garden waste would be collected once a week, refuse would be collected from a small bin once a fortnight and recyclables would be collected on the alternate weeks. Officers hope this would enable the authority to achieve a 50% recycling rate.

Glass may be colour sorted in the future, particularly as FoDDC is investigating the possibility of setting up a joint working agreement with the WCAs in Gloucester, Cheltenham and Tewkesbury where colour sorted glass is collected.

FoDDC hopes to reduce the number of bring sites in the district. Currently bring tonnages and kerbside tonnages are combined so it is impossible to know precisely the impact the kerbside collection has had on the bring tonnages. Officers would like to convert 7 can banks at 6 of the larger bring sites to plastic bottle banks. They hope more people would recycle cans using the kerbside system if this were to happen and it would enable an additional material to be collected.