

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

Appendix XVII: Redditch Borough Council

Redditch Borough Council

Introduction

Redditch Borough Council (RBC) received Round 2 funding to introduce a separate dry recyclables collection to 29,660 properties (approximately 90%) in the Borough. By the end of 2004/05, the kerbside collection scheme had been rolled out to 22,171 households, the final round being implemented in July 2005, bringing the current coverage to 83% of the Borough. Prior to the introduction of the collection in 2002/03, RBC's BVPI 82a was 8.1%, this has increased to 15.92% 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

RBC is one of six districts in Worcestershire. The population is 79,200 living in approximately 33,824 households. The Borough is a "new town" and in some areas the population is quite similar to that found in urban environment, with all the associated benefits and disadvantages. Within the Borough there are some areas of deprivation.

The majority of households have been served with wheeled bin collection of refuse since 1995. The standard bin size is 240L and historically households could have up to 2 bins if they met a range of criteria. For the last 3 years paper has been collected by a private company from mainly private residential areas on Saturday mornings. Twenty one bring sites across the borough were in place prior to the introduction of kerbside collection and there was some promotion of recycling via bring. In 2002/03 RBC achieved a recycling rate of 8.1%.

RBC does not collect green waste but aims to retain green waste at the point of generation, and several promotions of subsidised compost bins, alongside a free home shredding service have been undertaken within the Borough, in conjunction with the WDA, Worcestershire County Council (WCC).

The WDA were to procure a materials recycling facility and waste to energy plant at Kidderminster as part of a 25 year integrated waste management contract, but due to planning issues the facilities have not been built. The contractor for Worcestershire, was set a recycling target within the contract and was to have collected dry recyclables separately. When planning permission for the Kidderminster facility was refused in July 2003, responsibility for the recycling operation was passed back to RBC. In August 2003 RBC decided to bid for Round 2 funding to establish a kerbside sorted dry recyclables collection in order to collect high quality materials and hopefully find secure markets for their sale. The sorted collection provided them with flexibility should markets change and also removed the dependency on WCC to provide a MRF to sort the materials.

Kerbside Recycling Experiences

Collections funded from Round 2 NWMRF

Round 2 funding of £652,805 was provided by DEFRA to assist RBC in setting up a weekly kerbside sorted collection of paper and thin card, textiles, cans, and mixed glass from 29,660 (92%) households. Household holders place paper, card and textiles in one 38L lidded box and glass and cans are collected in a second 38L basket. The funding covered the costs of 4 vehicles, the boxes and baskets that are microchipped and associated technology, a bulking facility, plus salary, publicity and other revenue costs.

Additional funding has been provided by RBC itself and via a grant from WCC. As the WDA receives the collected recyclate, recycling credits are not paid and the grant is provided to help the district achieve an enhanced recycling target set within the Joint Municipal Waste Management Strategy (JMWS).

Collection day for recyclables is the same as for refuse that are both collected weekly. Any new build properties or households requiring a new refuse bin are issued with a 180L capacity bin. Approximately 85% of households have 240L bins with the remainder having either the newer smaller bins or larger, 360L bins which serve larger households or multi-occupancy properties.

At the same time as introducing the recycling collection, strict no-side waste and closed lid policies were introduced. Any bins that do not conform are not emptied and a sticker is used to inform the householder of the problem. Sacks left alongside the bins are placed into the bin once it has been emptied, and left. Two enforcement officers are employed to enforce these policies, as well as carry out other waste and cleansing related enforcement work. Residents can purchase orange sacks for additional refuse for £1 each (collection cost is partly covered by this charge) and these will be collected at the same time as refuse collection. Residents can request as many recycling containers as they wish.

Roll-out of the collection

RBC started to introduce the multi-material collections in May 2003. RBC wished to understand the types of problems that might be encountered when introducing separate collection and phased the collection roll-out. Phase 1 covered two rounds with a mix of five areas of socio-economic and housing infrastructure groupings to provide performance results from different types of areas.

By March 2004, RBC was serving approximately 14,700 (43%) households using three collection rounds and was starting to roll out Round 4; by the end of March 2005 around 22,173 (65%) of the Borough received the collection service. As the multi-material collection has been introduced the private company paper collection has been withdrawn.

In August 2005, following a review of the operation and looking to find ways to expand the service, crew sizes were reduced from a driver plus two to a driver plus one. This has enabled an extra round to be introduced that has enabled the service to expand to cover around 83% of the Borough. A crew of two works on each vehicle to sort the materials into stillages on the Fame or Optima vehicles. When the stillages are full, the vehicle returns to a transfer site within the Borough to empty the materials which are bulked before being transported by WCC's contractor. As recyclables are delivered to the WDA, RBC does not receive income from the sale of the materials.

RBC's waste collection is carried out by its in-house environmental operations team that has been actively involved in the set up and roll out of the separate collection. New crews were employed to undertake the recyclables collection and from the start have "owned" their own round. The crews started with a two day training course that explained why RBC was implementing this type of collection, and who the customers were and what they wanted. The crews helped to design their own collection rounds and were made responsible for box delivery. New crew members are now trained on the job. Salaries are competitive, around £18,000 and are the same for refuse or recyclable collections.

During design of the new rounds, RBC discovered that the land and property gazetteer was not totally accurate due to many new houses being built in Redditch. The information recording system linked to the micro-chips intended for use in the baskets and boxes therefore could not be set up effectively.

In addition to the crew members working on the kerbside collection, a recycling project officer and an administrator (6 months fixed term) were also taken on, paid for with DEFRA funds. The recycling project officer has since remained in post on a fixed term contract. RBC set up an internal working group that met weekly during the busy implementation period, then fortnightly and now monthly. The Recycling Action Group comprised staff from the strategy and operations divisions of Environmental Services.

Communications and promotion of the collection

The crews were responsible for delivering three information leaflets over a three week period prior to and during box delivery. The crews also delivered the boxes and wherever possible contacted householders in person to check they understood the impending changes to waste collection. Where this was not possible, a card was left with contact details for further information if required.

Over both festive periods to date since the start of the collection service, RBC have held an awareness raising campaign to explain what can and cannot be recycled from waste and delivered a clear sack with a leaflet to each household served by the kerbside scheme, for residents to recycle excess paper. The take up was extremely high and tonnages increased by up to 91% for the months of these promotions. RBC have concluded that this is due to overall higher waste tonnages during this time and that some residents may have been recycling for the first time and did not have their original containers, so found the sack a useful way of recycling some of their waste.

RBC have designed their own mascot, Rikki the recycling rat. He follows a strong RBC tradition for using mascots to promote environmental messages. Rikki features on all recycling publicity, is used for advertising in the local paper and has been on the cover of RBC's in house magazine and council tax leaflet for 2004/05. Rikki regularly appears "in person" at local events such as fetes and charity fund raising activities and has taken part in national events, including most recently an appearance on Blue Peter as part of the Children in Need campaign.

RBC opened 4 additional phone lines (previously there was one phone line to take waste related calls) as a temporary measure to deal with the increased number of calls, when the authority decided to implement a policy of no side waste and flat lids on bins. A dedicated recycling hotline was also launched in time for the roll-out of the kerbside collection.

Kerbside Recycling Experiences

In July 2004, 1,881 householders served by the kerbside scheme were sent surveys by post. Over 34% of householders responded and 92% of respondents thought the scheme was a good idea, with 70% saying that kerbside collection made recycling easy.

Performance of the collection

Recycling in RBC has grown from a BVPI 82a of 8.1% in 2002/03 to 11.5% in 2003/04 and 15.9% in 2004/05. It should be borne in mind that the collection started in May 2003 and was still being rolled out during 2004/05. During 2004/05 3,306 tonnes of additional material were collected from recycling from between 20,467 households (at the start of the year) and 22,173 households (at the end). This is equivalent to approximately 157kg/household/year.

Set out was monitored until August 2005 by the driver of each round completing a log sheet to record each property taking part and the materials put out for collection. It was found that set out is quite steady, however, tonnage is very variable. Set out ranged from 6% in some areas to over 90% in others, with an average for the borough of 56.6%. The monitoring of set out stopped with the introduction of two person crews in August 2005.

Based on this average set out rate the quantity of material collected per participating household is estimated to be 278kg/household/year.

Capture rates have not been measured but officers feel these are certainly lower than participation rates, particularly as the composition of collected recyclables shows that few food cans are being collected.

Overall, the collection has contributed 10.06% to the combined BVPI 82a and 82b; however it must be remembered that by the end of 2004/05 the collection covered only 65% of the Borough (currently the service covers 83% of the Borough). No green waste collection is currently carried out by RBC.

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 RDC 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	–	33,824	Weekly	27,152	26	21
Dry sorted	for ~21,000 households	22,173	Weekly	3,306	120	13
Total	–	33,824	–	30,458	36	33

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. There are a number of reasons for this, including:

- having the close working relationship between the operations and strategy teams where there is no longer an “us and them” culture;
- organising successful crew training and crew ownership of each kerbside round;
- promoting a fun mascot, Rikki the rat, representing Redditch’s recycling, home composting and cleansing services;

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- reviewing what did and did not work well in 1995 when black bins were introduced in the Borough and studying how other WCAs had implemented kerbside schemes;
- planning carefully, including organising trials and taking time to roll out the scheme;
- having cross party support for recycling from Members;
- being consistent and firm about the waste minimisation policies.
- supporting waste and recycling collections with enforcement action wherever possible through dedicated enforcement officers

Some of the less positive aspects of the collection are:

- the out of date information on properties which meant the bin micro-chip system could not be used;
- contractual problems between the WDA and its contractor leading to uncertainties about recyclables collection and the lack of income or recycling credit to RBC, however, the decision RBC took on kerbside collection is one Officers are happy with;
- Officers are disappointed with the recycling rate recorded in RBC and although they acknowledge that the Borough has classified areas of deprivation, the opt-in kerbside collection has not provided enough of an incentive to divert the majority of recyclable waste out of the residual waste bin.

Developments following the Round 2 funding

Following the funding in 2003/4, the collection was gradually expanded to cover its current size of 83% of the Borough. However, it is unlikely that there will be any further significant expansion of the scheme as it currently stands. The JMWS sets a Vision for all authorities in Worcestershire to strive towards a common system of collection, whereby householders will be able to recycle a wider variety of materials through a mixed wheeled bin collection, collected on alternate weeks to residual waste. The materials would be collected in RCV's and then taken to a MRF to be operated by the WDA's contractor. RBC are in the process of compiling a select list of tenderers for the next generation of recycling vehicles, to improve capacity and efficiency, as the Fame vehicles are now nearing the end of their useful lives.

As an alternative disposal route, the WDA and its contractor are currently negotiating with a third company to provide an autoclave thermal treatment process which separates out recyclables and then turns mixed refuse into re-usable fibre. Planning permission has been granted to build a facility at Hartlebury. RBC is working closely with its Members and the WDA to look at the timetable needed to move towards the County's waste management vision.

Officers feel that in order to meet recycling rate targets of over 20% the authority will have to adopt an alternate weekly collection system to pressurise the waste stream and control costs. In line with national trends, the authority recognises the importance of having a green waste collection in order to meet even higher targets, but Officers consider that further analysis is needed on the costs and quantities that might be collected, before this option can be pursued.