

ANGUS COUNCIL

INFRASTRUCTURE SERVICES COMMITTEE – 20 JANUARY 2009

DOMESTIC CARDBOARD RECYCLING (THIRD BIN) – EVALUATION OF TRIAL SERVICE

REPORT BY THE DIRECTOR OF INFRASTRUCTURE SERVICES

ABSTRACT: This report advises the Committee on the outcome of the 18 month trial in providing a domestic cardboard recycling and collection service and with the introduction of a third bin to over 1100 houses in Arbroath.

1. RECOMMENDATIONS

1.1 It is recommended that the Committee agree:-

- (I) To note the report,
- (II) That the pilot service continues meantime in the current trial area, and
- (III) That the Director in conjunction with the findings of the best value review in waste management bring forward a detailed report including a cost/funding appraisal for a phased programme to roll out the service to include the whole of Arbroath initially and thereafter other towns on the kerbside recycling system.

2. INTRODUCTION

2.1 Report 1415/06 approved the establishment of a trial scheme for the kerbside collection of small cardboard packaging from households. It was considered at the time that the removal of this bulky material from the bin for recycling would enable the Council to improve their recycling performance by targeting the 25% of bin waste taken up by paper products. It was also considered that such a service would enable householders to manage their wastes better and remove problems of capacity within the grey waste bin.

2.2 The trial was started in June 2007 and has now been active for some 18 months covering 1127 properties in Arbroath (approx 10% of households in the town). As recommended in the report it would seem now appropriate that the Committee are updated on the outcome of the pilot service in order that this may inform future strategy on waste recovery and recycling.

2.3 This report provides an overview of the following:-

- An evaluation of the service and outcomes – household participation, amount by weight of cardboard recovered, householder reaction to third bin and effect on residual waste (grey) bin.
- The outcome of a customer survey and consultation on the provision of a third bin (either cardboard and/or co-mingle recyclables) service and frequency of collection.

3. BACKGROUND

- 3.1 Each householder in the trial area was provided with a 140 Litre (Lt) blue coloured wheeled bin to contain small cardboard packaging which otherwise could end up in the waste bin. These bins are about half the capacity of the standard grey wheeled bins in general use in Angus.
- 3.2 The bins are serviced on a fortnightly basis using an existing conventional refuse collection vehicle and the cardboard delivered to the Council's central recycle sorting and bulking depot at Peasiehill Road, Arbroath.
- 3.3 The area selected for this pilot was the 'Glens' area of Arbroath. This was carefully chosen as this offers a contrast between flatted, terraced, detached and sheltered housing and is an area with significantly larger family homes.
- 3.4 For the purposes of the trial, Arbroath also offers the benefit of being the location of the centralised baling and dispatch facility, which as it is on the door step of the pilot, meant transport costs can be minimised.

4. EVALUATION OF THE SERVICE

- 4.1 During the trial period monitoring of household participation and recovery rates were carried out to assess the overall effects and difference the new service had on householder's ability to manage their waste and the contribution made to recycling.
- 4.2 Monitoring of the put-out rate per household was carried out over 3 collection cycles, unfortunately this was interrupted on 2 occasions by strike action which fell on the day of collection. An added difficulty was accurately measuring the participation rate of households in flatted or shared bin areas. Participation rates by household were assessed as follows:-
 - Flatted areas with shared bins and an area of terraced houses with a pull out service representing 25% of the total households on the trial; the participation rate was 19%. The participation rate per household here is likely to be understated due to the number of shared bins in use.
 - The remaining area representing 75% of households, the participation rate was 67%.
- 4.3 The total weight of cardboard collected during the 3 monitoring cycles is probably understated due to the strike action. It is likely that households when bins became full either removed the excess to the local recycling centre or disposed of the cardboard in the general waste bin. Otherwise the following observations were made from the evaluation exercise:-
 - An initial monitoring of cardboard collected over two weeks at the start up of the service in June 2007 showed that 3.11 kilos per household was collected.
 - Total collected over the subsequent monitoring periods equated to 2.37 kilos per households per collection cycle. This shows a 24% reduction in recovery tonnages from the initial monitoring exercise. Some slippage is to be expected although another influencing factor other than the strike previously mentioned could be that there was limited customer contact or publicity following the initial launch of the service.
 - Examination of the contents of the blue bin / cardboard collection showed very low levels of contamination.

- Side waste (general waste out with bin, sacks etc) was found to be 0.4% which is considerably lower than the Arbroath average. This is a good indicator that householders in the third bin/cardboard collection area are able to manage their wastes better.
- Based on the average of 2.37 kilos per household and assuming at least the same level of cardboard is collected then the potential for 10,000 participating household over the whole of Arbroath would contribute a further 616 tonnes per annum to the recycling effort in Angus.
- Full waste analysis of residual wastes (grey bin) were undertaken prior to the start of the trial and periodically during the trial from a representative number of households within the pilot area. While initially cardboard in the waste bin represented 7.1% by weight of the total contents of the bin this was reduced to 1.33% of the waste bin after the separate cardboard collection service was put in place.

5. CUSTOMER SURVEY AND CONSULTATION

- 5.1 A survey of households contained within the pilot area for cardboard collection in Arbroath was undertaken during the months of September and October 2008. The recycling advisor surveyed 253 of the 1127 households included in the cardboard trial area (a statistically robust sample, as advised by Scottish Waste Aware Group), knocking on doors to carry out face to face surveys. Each of the 27 streets in the pilot area were covered, including flatted, terraced, semi-detached and detached properties (61 respondents were from flatted properties, 147 from terraced properties, and 45 respondents were from detached or semi-detached properties). Surveys were conducted during normal working hours, with the results analysed using a statistical package (Pinpoint).
- 5.2 The survey was designed to allow consultation with householders in relation to the suitability of the service as it is now, with regard to:
- the frequency of collection
 - the size of bin
 - usefulness of campaign materials
 - any problems with the service and suggestions for improvements
 - barriers to the scheme and how we could overcome these
- 5.3 The survey also sought to allow consultation with householders in relation to the suitability of the service with possible changes, with regard to:
- the frequency of collection
 - the size of bin
 - co-mingling of materials
 - barriers to the scheme and how we could overcome these
- 5.4 In addition, the survey aimed to assess whether householders:
- value the cardboard collection service
 - believe the service helps them manage their waste (i.e. reduces pressure on the grey bin)
 - also use their recycling boxes and compost bins

A full account of the survey is available in the Members' Lounge.

5.5 The following is a top line summary of the survey results:-

- 98% households use their blue bin.
- 70% put their bin out fortnightly with 24% putting theirs out every 4 weeks and 6% leave their bin for longer before putting out.
- 30% say their bin is full; 30% say three quarters full and 30% half full at time of collection.
- 98% of households are happy with the frequency and capacity of the collection service.
- 80% would be happy with a 4 weekly collection with a bigger (240Lt) bin and 5% happy for a 4 weekly collection with the existing 140Lt bin.
- 83% would be happy with a bigger bin and co-mingled collection; 6% would prefer to retain their smaller bin.
- 89% rated the service on a scale of 1 – 5 as 5 very good, 7% as 4 good and 3% as average. No one rated the service as poor.
- 98% believed that the third bin service helps them manage their waste (grey) bin better.
- 97% would like the service to continue.
- 88% did not previously recycle cardboard but put cardboard in their grey bin prior to the start of the service.

6. NEXT STEPS

6.1 It has always been recognised that the current kerbside recycling collection service would be subject to review if the Council was to achieve the objectives and targets set by the National Waste Strategy. The aim of this trial was to provide data, test the public's response to recycling and to consult on the use of a third bin and method of collection so that future expansion or changes to services can be justified and householder led. The fact that the Council carries out a trial is essential for the Council attracting additional funding from the Scottish Government Zero Waste Fund.

6.2 Clearly the vast majority of households in the pilot area are very pleased with the cardboard collection service and are happy at the third bin system which they believe makes recycling easier and helps reduce pressure on the grey waste bin. 89% who use the blue bin are also receptive to the idea of using the bin for mixed recyclates and this gives Officers of the Council in conjunction with the current best value review in waste management a remit to examine the scope and practicalities in such use.

6.3 For the Council to achieve the targets it has set itself as part of the Single Outcome Agreement (SOA) for the reduction in waste going to landfill and increase recycling further, significant measures to divert waste from the grey bin will be required. If a domestic cardboard collection was extended to the whole of Angus where there are close to 44,000 households on kerbside recycling, it is estimated the additional recycling rate could be increased by as much as an additional 5% thus raising the recycling rate to over 40%. The whole of Arbroath alone could contribute from 1.5% to 2% additional recycling in Angus.

7. FINANCIAL IMPLICATIONS

7.1 There are no financial implications arising directly as a result of this report. [Report 1415/06](#) noted that there would be minimal set-up and operating costs associated with the pilot exercise through the use of refurbished bins and existing manpower

and vehicles. This has proved to be the case and therefore for the Council to continue the service in the pilot area it is considered that as this service is now embedded into the operational routine of Direct Services within the Arbroath area this can continue using current budgeted resources.

8. EQUALITIES IMPLICATIONS

8.1 The issues dealt with in this report have been the subject of consideration from an equalities perspective (as required by legislation). An equalities impact assessment is not required.

9. SINGLE OUTCOME AGREEMENT

9.1 This report contributes to the following local outcome(s) contained within the Single Outcome Agreement for Angus.

- Reduction in waste through a sustained increase in recycling and reuse of wastes.

10. HUMAN RIGHTS IMPLICATIONS

10.1 There are no human rights implications arising from this report

11. CONSULTATION

11.1 The Chief Executive, Director of Corporate Services, Director of Neighbourhood Services, Head of Law and Administration and Head of Finance have been consulted on the contents of this report.

E S Lawson
Director of Infrastructure Services

No background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information) were relied on to any material extent in preparing the above report.

E&CP/IW/GK
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