

National Waste Minimisation and Recycling Fund (NWMRF)

Key Findings for Round 2 projects in 2003/04



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Background to the Fund

The National Waste Minimisation and Recycling Fund (NWMRF) is managed by Defra, and awards grants to English local authorities (LAs) outside London for a variety of projects to implement local waste minimisation schemes, and to improve recycling and composting performance. Grants were awarded through a competitive application process. There have been three bidding rounds. 112 projects were approved in the first round, 153 in the second, and 68 in the third. This paper covers Round 2 projects during 2003/04.

Total recycling and composting in 2003/04 for Round 2 projects was 214,869 tonnes or 71% of the 301,263 tonnes anticipated. In addition 314 vehicles and 4,313,437 containers were procured to enable this.

The Round 1 projects recycled and composted a total of 196,090 tonnes during 2003/04, which was their second year of operation.

This paper summarises the following key performance indicators of Round 2 of the fund:

- (i) Percentage of forecasted project tonnes actually collected;
- (ii) Percentage increase in LA recycling rates resulting from NWMRF projects;
- (iii) Average kg collected per project type per household per week; and
- (iv) Costs per tonne collected by projects.

Note that this paper only covers the first year of operation of Round 2 projects. Different implementation timetables meant that some of these projects were scheduled to start only just before the end of the year. Consequently this report may underestimate the full potential that can be achieved by projects after they have been operating for a sufficient period of time and to take account of seasonal variations. All measures and ranges are preliminary and will be reviewed over the coming months.

A full evaluation will be produced at a later stage. This will include qualitative case studies and investigate the reasons behind observed performance.

Data used

The data underlying the analyses are contributed on both a quarterly and annual basis to Defra by all local authorities (LAs) receiving funds from the NWMRF¹. Without these returns, a systematic evaluation of the Fund's performance would not be possible. Defra would like to thank all LAs involved for their active participation in designing this monitoring system and all LAs who have provided completed returns.

¹ Data was submitted for 150 of the 153 Round 2 projects

Project categories

Round 2 projects included several project categories as shown in Table 1 below. The number of projects in each category (for which we have data) is recorded as well as the share of the total forecasted tonnage of materials or green waste collected by each project category.

Table 1: Project categories and performance

Project Category	Number	Share by project category of total forecasted tonnage
Kerbside collection	113	82%
Recycling and household waste centres	3	3%
Awareness Raising	13	2%
Home composting	1	0%
Materials Reclamation Facilities (MRF)	3	9%
Composting site	4	1%
Other	13	3%

What is immediately apparent from the table is the preponderance of kerbside collections as a category – accounting for 113 or three quarters of the 150 Round 2 projects for which data are available and over four fifths of the collected tonnage. Given the importance of kerbside projects as a category, and the distinct features of such schemes, at this stage, the paper concentrates on key performance figures for kerbside projects before briefly commenting on the smaller numbers of awareness raising projects and materials reclamation facilities (MRF).

This paper will also briefly discuss Waste Minimisation projects (which also involved kerbside recycling).

Kerbside Projects by sub - type

There were four types of kerbside project defined by (i) whether one or more types of material were recycled and (ii) whether green waste and / or kitchen waste was involved. The number of projects within each type is shown in Table 2, which also indicates the share of the total 247,624 tonnes forecasted for the 113 kerbside projects.

Table 2: Kerbside projects by type

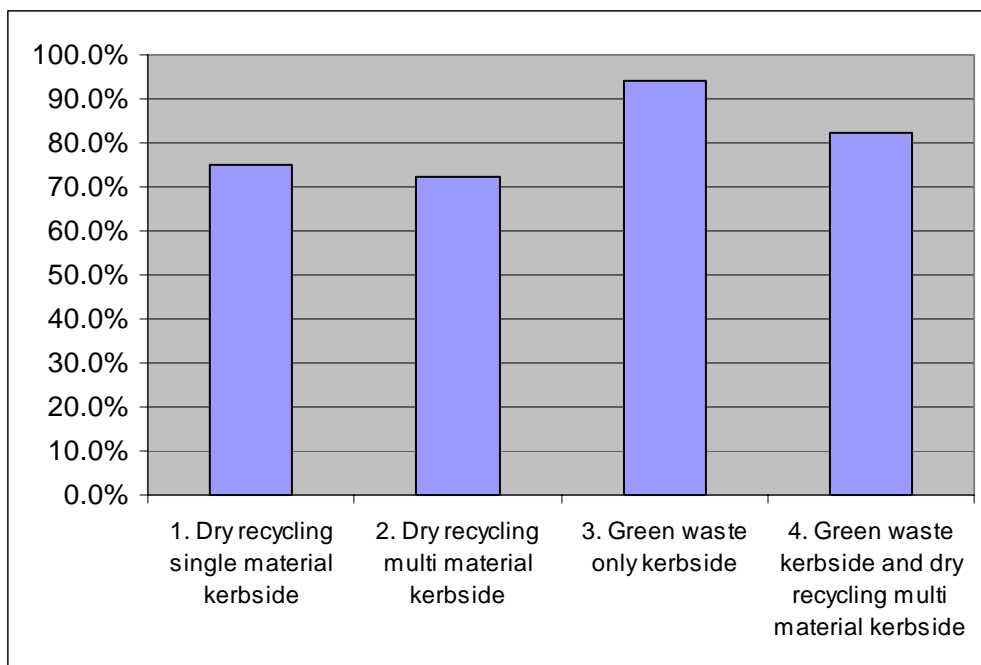
Project Type	Number of projects	% of total forecasted tonnage
1. Dry recycling single material kerbside	7	4%
2. Dry recycling multi material kerbside	57	41%
3. Green waste only kerbside	25	13%
4. Green waste kerbside and dry recycling multi material kerbside	24	42%

Projects within the first type collected one material – either paper or glass, and in the second collected two or more types of non-green waste materials². The other types included green waste, either on its own (type 3), or with other types of dry material (type 4).

Note that there were only 7 type one projects accounting for just 4% of the forecasted total tonnage.

Chart 1: Average performance in project recycling as a percentage of forecasted by project type:

On average, kerbside projects recycled or composted 79% of what was forecasted. This is a very commendable result. Chart 1 breaks down this information by type of kerbside project.



² Materials other than Green Waste included Paper, Glass, Plastic, Metals, Batteries, Cardboard, Cans, and Textiles.

Chart 2: Average actual reported percentage improvements in LA recycling performance (BVPI 82a +82b) by project type:

Chart 2 shows average additions due to projects to the percentage of total LA waste that is recycled or composted.

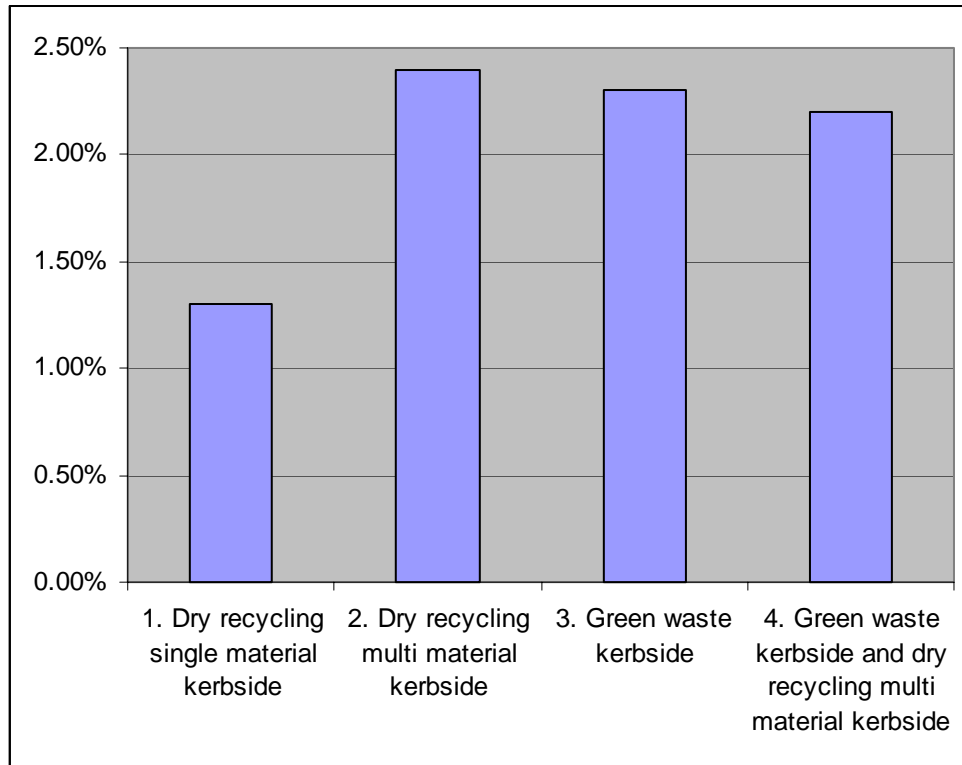


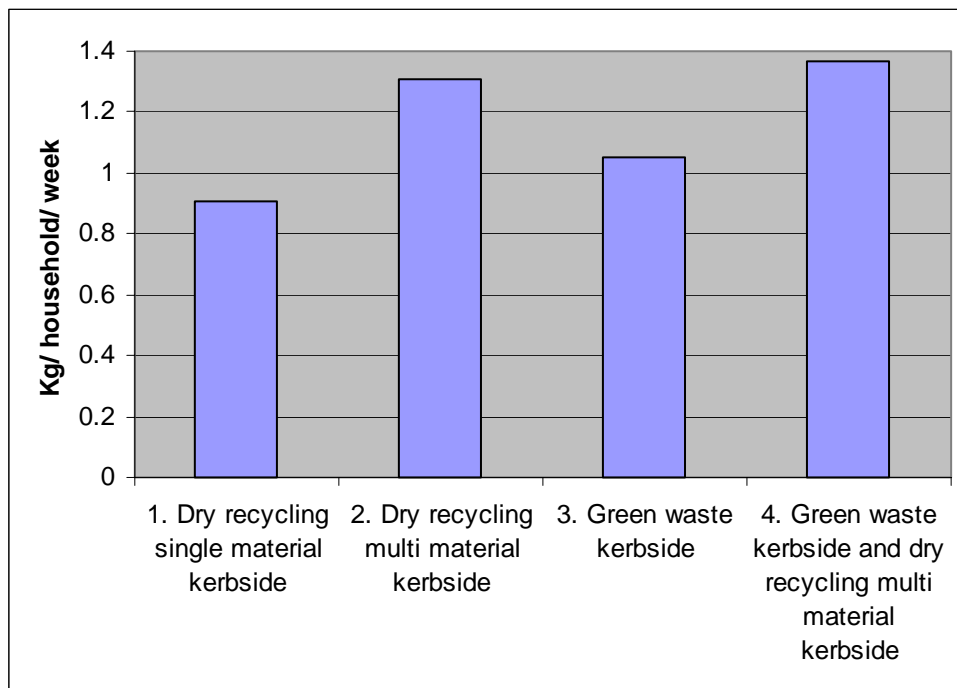
Table 3 (next page) breaks down the information on improvement to recycling rates by individual project performance. It is apparent that there is much more variation in performance *within* project categories than between them, although type 1 projects appear more bunched together.

Table 3: Ranges of improvement to LA recycling rates within project types

Project Type No	1	2	3	4
Percentage of LA Waste Recycled due to project	Number of projects in range	Number of projects in range	Number of projects in range	Number of projects in range
Above 10%	0	1	2	0
>9 to 10%	0	2	0	1
>8 to 9%	0	0	0	1
>7 to 8%	0	0	1	0
>6 to 7%	0	4	1	2
>5 to 6%	0	3	1	4
>4 to 5%	0	6	4	1
>3 to 4%	0	5	1	2
>2 to 3%	2	7	1	3
>1 to 2%	2	12	3	2
>0 to 1%	3	13	10	7
No Data	0	4	1	1
Total	7	57	25	24

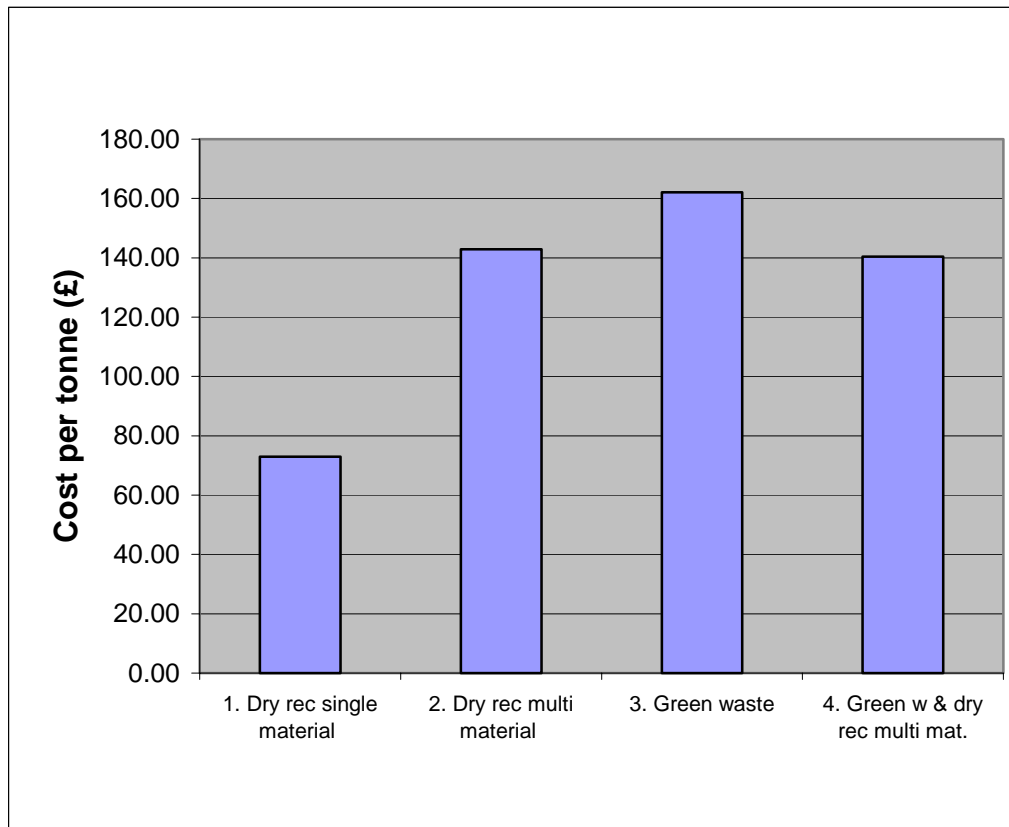
Again, note that these figures may underestimate the full potential of projects due to many of them not being scheduled to start until just before the end of the first year, and that these figures will be reviewed.

Chart 3: Average capture rates by project type in Kg per household per week:



It is clear from the above analysis that single material kerbside projects tended to have significantly lower average capture rates than other project types over the first year.

Chart 4: Costs per tonne of material collected by project type



These preliminary costs per tonne have been calculated by taking account of the assumed lifetime of recycling / composting collection. It is also assumed that these costs per tonne are net of income.

Please note that these figures include the instances where there are costs associated with build elements such as transfer stations and bulking bays.

On average, dry single material recycling kerbside projects appeared to have significantly lower costs per tonne compared to the other types.

Awareness Raising Projects

These projects mainly targeted paper recycling in the first year of Round 2 and accounted for 2% of total planned recycling tonnage.

Total reported recycling / composting was 93% of reported planned among awareness raising projects, which exceeds the 79% figure for kerbside schemes. However, the other performance figures as measured by the database were relatively low.

Awareness raising projects were recorded as adding an average of 0.2% to LA recycling/composting rates – significantly lower than the averages for the four kerbside scheme types of between 1.3 and 2.4%. Recorded average capture rates were also very low at 0.13 Kg per household per week compared to averages of 0.9 to 1.3 kg per household per week for the respective kerbside project types.

Costs per tonne for awareness raising projects were comparable to the higher end of kerbside projects at over £160, although these reduce over the longer term as awareness projects have full impacts.

Materials Reclamation Facility (MRF) projects

MRF projects are defined as fixed facilities where materials that are collected by the LAs are sent to be reclaimed. There were only three of these projects, but they accounted for over 9% of total planned recycling tonnage in Round 2.

Total reported recycling from these projects was only 37% of planned. This reflects the fact that only one of the three projects started operating early enough in 2003/04 to generate any tonnage recycling, whilst the other two were not able to get up and running early enough in the year to have any impact on the figures.

The project that did operate was a partnership between several authorities, and on average, added 2% to each participating LAs recycling rate, which is comparable to the average figure for kerbside schemes during their first year. Its capture rate was slightly lower than for average kerbside schemes at 0.79 kg per household per week, compared to the four kerbside project type averages of between 0.9 and 1.3.

Waste Minimisation Projects

Waste minimisation projects are defined as projects that prevent waste from entering the waste stream. Due to their nature, the tonnage of waste diverted is difficult to measure and is often estimated.

The 11 Waste Minimisation (WM) projects that provided data for 2003/04 were kerbside projects that also composted/recycled.

It was estimated that 32,287 tonnes was “minimised”. Reported WM was 227% of the forecast figure, which is significantly higher than for recycling / composting projects.

All 11 projects reported that they had minimised waste, and ten, or 91%, of projects significantly exceeded their planned targets.

On average 0.52 Kg was minimised per targeted household per week among these projects, with a range of between 0.1 and 9 kg/ household/ week.

Conclusion

The majority of WMRF projects were kerbside schemes. Among these kerbside schemes, on average, single material projects collecting either glass or paper tended to have lower performance than the other three types in terms of additions to LA recycling rates and project capture rates, although average costs per tonne were significantly lower for this project type. Note again that there was only a small sample for this type of kerbside project and this was only over the first year.

A more striking finding was that performance is determined less by project type per se than by other factors, which was reflected in the large range of project performance shown for increasing LA recycling / composting rates. There appears therefore to be real potential for intra – LA learning.

Overall performance for the limited number of projects that involved either awareness raising or bring facilities appears low at this stage compared to kerbside projects. However, waste minimisation projects at this stage appear to have significantly exceeded forecast minimised tonnages.

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