

The Oxfordshire Waste Partnership

Annex C

Options for recycling and composting collections

No Time to Waste
The Oxfordshire Joint Municipal Waste Strategy

Background

Introduction

As part of the review of the Joint Municipal Waste Management Strategy, and to address the need to divert waste to meet the Landfill Allowances, the Oxfordshire Waste Partnership (OWP), comprising the five Waste Collection Authorities and the Waste Disposal Authority, has considered options for future waste collection, treatment and disposal in order to meet the Landfill Diversion targets. In line with the waste hierarchy, options for future waste management arrangements have been analysed in terms of waste reduction, ([Annex B Waste reduction and reuse plan](#)), recycling and composting which is detailed in this report, and finally waste treatment and disposal ([Appendix D – Options for residual waste](#)).

Consideration of the waste collection options has been carried out by consultants at Environmental Resources Management (ERM) as part of the strategic review process. This summary report describes the evaluation and assumptions used for the collection options and the results of this process.

Overview of Options Appraisal

The recycling and composting options assessed in this report were identified through consultation with each of the District Councils of Oxfordshire and a final list of options were put to the OWP for final agreement.

The baseline option details the current collection system that each of the District Councils currently operate, (or operated in the year 2004/05). The data used for modelling both the collection options and residual waste options is for 2004/05. Each option builds upon the baseline collection system to provide additional capacity and/or to achieve higher rates of recycling and composting. The options

modelled were selected to present an understanding of what recycling levels could be achieved if additional materials were collected.

Unlike some other options appraisals, it is unlikely that one option will be chosen as ‘the best’. It is expected that a combination of options provided will be taken forward into the Strategy on the basis of the balance of advantages and disadvantages that is demonstrated through the appraisal.

Approach

The Kerbside Analysis Tool (KAT) (1) was used as the basis for the collection option modelling. KAT is an easy-to-use spreadsheet which allows users to make projections of kerbside collection infrastructure and associated standardised costs. Projections can be based on KAT default values, which have been derived from an extensive survey of a wide range of kerbside collections and are held within KAT or locally specific data for some or all values to tailor projections to a particular collection area. Each collection authority was requested to complete a questionnaire sheet. Information gathered from the questionnaire and subsequent discussions with Council Officers from each district was used as the basis for modelling collection options for the OWP.

Waste composition data was available for three of the District Councils: South Oxfordshire, Vale of White Horse and West Oxfordshire. The waste composition of these three authorities were averaged and applied to Cherwell District Council and Oxford City Council. The options then went through a refinement process.

Analysis of Options

The options were examined using the five following factors:

(1) Refer http://www.wrap.org.uk/local_authorities/toolkits_good_practice/kat_information.html for the latest version of KAT.

- recycling and composting rates achieved
- cost
- road kilometres
- Biodegradable Municipal Waste diversion
- greenhouse gas emissions.

Recycling and composting performance shows the amount of diversion from landfill for each option. The other four factors are the evaluation criteria agreed by the OWP steering group, members and community panel.

Data for each of the chosen criteria was generated by the KAT model. This data was extracted from all the data KAT produced and summed to give totals for Oxfordshire. The results for each criteria were then compared and ranked to evaluate how each option performed according to each criteria. The best performing options for each criteria were taken through to a subsequent process for short listing.

The evaluation criteria of public perception was to be used to assess the recycling and composting options through using the public participation rates for the collections modelled in KAT. However, it was realised that the participation rates in KAT are an input and not an output produced by the modelling and so using the participation rates would not be an appropriate way to assess the criteria in this circumstance. Public Perception was not used to assess the recycling and composting options.

Refinement Process

The results of the evaluation criteria were looked at in detail by the Oxfordshire Waste Management Strategy/Steering Group (OWMSSG) officers. These were interrogated to ensure that the modelling results

were correct with a clear understanding of why certain options had good results for a certain criteria while other options scored poorly. This scrutiny meant that some refinement of the data used for modelling was made to ensure that the options modelled were accurate and reflected a collection option that would be practical on the ground.

Results

The results of the collection modelling have been combined with the treatment and disposal options (**Annex D – Options for residual waste**). Table 2 gives a summary of the collection options available, whilst Table 3 gives the outcomes of the combined modelling.

Further detail on the collection options modelling is contained within the ERM consultants reports to the Oxfordshire Waste Partnership.

Targets and Policies

The results of the collection option analysis supports the following policies and targets from the Core Strategy, listed in Table 1:

Policy	Content
Policy 6	<p>The Oxfordshire Waste Partnership will provide an integrated system of collection and processing of household waste which will achieve, as a minimum:</p> <p>By 31st March 2010: recycle or compost at least 40% of household waste; By 31st March 2015: recycle or compost at least 45% of household waste; By 31st March 2020: recycle or compost at least 55% of household waste. (Waste Strategy 2000 recycling and composting targets for household waste)</p>
Policy 7	<p>The Oxfordshire Waste Partnership will ensure that recycling facilities and services are available to all residents.</p>

Policy 8 The Oxfordshire Waste Partnership will encourage householders and businesses to separate waste for recycling collections by providing targeted information and awareness raising campaigns.

Policy 14 The Oxfordshire Waste Partnership will develop methods of working together to improve the level of service through effective and efficient use of resources within Oxfordshire.

Table 1 – Targets ad policies for collection options

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Collection Options	A	B	C	D	E	F	G	H	I*
Refuse	Ftly	Ftly	Ftly	Ftly	Ftly	Wkly	Ftly	Ftly	Ftly
Recycling	Ftly – CO	Ftly – CO	Ftly – K/S	Wkly – CO	Ftly – CO	Ftly – CO	Ftly – CO	Wkly – CO	mixed Opt G&H
Organic	No Collection	Ftly – G/K	Ftly – G/K	Ftly – G/K	Ftly – G	Ftly – G/K	Ftly – G/K	Chrg Ftly G	mixed Opt G&H
								Wkly K	

* – This Option consists of Cherwell operating Option G, West, South and Vale operating Option H and City operating fortnightly

Key	
Ftly	Fortnightly collection
Wkly	Weekly collection
CO	Co-mingled Collection
K/S	Kerbside Sort Collection
G	Garden Collection
K	Kitchen (Food) Collection
G/K	Combined Garden & Kitchen Collections

Residual, fortnightly co-mingled, fortnightly garden and kitchen collections, fortnightly paper and glass collections,

Table 2 – Oxfordshire strategic waste review summary of collection options

Annex C – Options for recycling and composting collections

Collection Option	Disposal Option	Collection Cost (NPV) £000	Disposal/Treatment Cost (NPV) £000	Total Cost (NPV) £000	Ranking	Recycling %
A	EFW MBT RDF to Market					
B	EFW MBT RDF to Market					
C	EFW MBT RDF to Market					
D	EFW MBT RDF to Market					

E	EFW	
	No treatment	
F	EFW	
	MBT RDF to	
	Market	
G	EFW	
	MBT RDF to	
	Market	
H	EFW	
	MBT RDF to	
	Market	
I	EFW	
	MBT RDF to	
	Market	

NB. The ranking takes into account all financial, environmental and service criteria. The lower numbers represent the more favourable options, and the higher numbers represent the least favourable strategic options.

Table 3 – Results of Combined Evaluation

Conclusion

This report details the process and the outcomes of the collection modelling exercise. These results will now inform each District Council (Waste Collection Authority) as they evaluate the options further and select a collection scheme appropriate to their local circumstances. The final collection schemes will be in line with the overall OWP Core Strategy's vision, objectives and policies.