

CAMBRIDGESHIRE AND PETERBOROUGH JOINT WASTE MANAGEMENT STRATEGY

Part 4 – Landfill Directive: Strategic Plan to Reduce Landfill

4.1 The joint authorities have a number of strategic objectives which they believe will best serve the residents of Cambridgeshire and Peterborough and enable them to meet their wider obligations.

They are:

- To meet the targets set for reduction of Biodegradable Municipal Waste (BMW) sent to landfill
- If possible, to exceed those targets in order to:
 - a) further reduce the production of CH₄ as a contributor to climate change
 - b) secure income through trading in surplus permits¹
- To reduce the total dependence on landfill (all materials) in order to reduce long-term demand for landfill capacity, (but subject to the BPEO evaluation of landfill in comparison with other residue treatments / disposal methods).

4.2 The achievement of a reduction in biodegradable waste to landfill is essentially the end product of this MWM strategy – it should mirror the results of our strategy to increase recycling, composting and recover value from residual wastes.

4.3 However, the rate of growth in Municipal Solid Waste (MSW) will determine whether the residue landfilled actually falls or merely remains stable whilst recycling and recovery expand.

4.4. Our use of the ‘Babtie’ model to forecast household waste is explained in paragraph 2.2.4. However, MSW is harder to forecast in the strategy area. Though the Babtie model has been used there is a slightly higher degree of uncertainty when applying it to MSW. For example, street sweepings can be predicted to grow at rates proportional to land development, but other fractions are more volatile:

- Commercial waste collections by District Councils are subject to market forces and commercial decisions taken;
- Abandoned vehicles, tyres and fly-tipped waste are subject to a wide range of pressures. Currently each of these waste streams is on a sharp increase, but if producer responsibility has the desired impact, they should tail off.

4.5 It is therefore prudent to identify the measures designed to minimise waste and to increase recycling, which will also drive BMW downward; most of

¹ The system proposed would allocate landfill time-limited permits to disposal authorities; if an authority reduced its need for landfill below its permitted amount, it could ‘sell’ the surplus permit to an authority in the reverse position. The income could meet the cost of its additional recycling or waste diversion activity.

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these are already described elsewhere in the strategy, the exceptions being the last two:

- The Waste Local Plan; its strategic objective is to facilitate sustainable waste management (see paragraph 2.15)
- Home Composting programme (see paragraph 2.5)
- Waste avoidance and minimisation programmes (see paragraph 2.3)
- Recycling plans (for paper, card, textiles, wood) (see Part 3)
- Central composting of doorstep collected and HWRC green waste (see paragraph 2.3 and Part 3)
- Recovery of value from residual wastes by means of
 - Pyrolysis or gasification (see paragraph 2.6)
 - Or mixed waste processing (see paragraph 2.6)
 - Or incineration (though considered unlikely)
- Further development of systems to recycle or recover value from post consumer packaging, working with supermarkets and compliance schemes, and utilising income from Packaging Recovery Notes²
- Introduction for District Council commercial customers, of separate collections for biodegradable and non-degradable wastes, or for paper/card/all other wastes depending on the type of business. Some of this material is more readily recyclable than household waste.

4.6 The joint authorities believe that the establishment of alliances with the commercial sector could be valuable throughout the implementation of the strategy, and in particular in reducing BMW. Landfill tax rates are likely to be a key factor in the commercial sector's response.

4.7 The acid test is whether the targets adopted for recycling and composting of household waste will, if met, also produce the necessary reduction on BMW going to landfill. From Table 5 in section 5.4 of 'Towards a Waste Management Strategy', it can be seen that to meet the 2010 target, 154,123 tonnes of the 464,481 tonnes of MSW arising will have to be diverted from landfill. This is 33% and will comprise both green and organic materials. The table (below) shows the anticipated share of various material streams contributing towards the 2005/6 and 2010 targets for household waste, and for that year, the tonnages of organic and green waste that need to be recovered.

² Packaging Recovery Notes (PRNs) are tradable certificates issued by reprocessors of packing to certify that obligated companies have recycled or recovered packaging waste, or that it has been done on their behalf.

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Waste Stream	Inorganic	Organic	Green	Total Recovered	Total Non Recovered
Theoretical Composition	33%	29%	21%		17% (recoverable)
2000/01 Achieved	5%	8%	7%	20%	80%
2005/6 Target	8%	16%	16%	40%	60%
2010 45% Target	9%	18%	18%	<u>45%</u>	<u>55%</u>
2010 Household Waste Forecast, tonnes		<u>77,828</u>	<u>77,828</u>		432,378
			155,656		
2010 50% Target Household Waste	10%	20%	20%	50%	50%
		<u>86,476</u>	<u>86,476</u>		
			172,952		432,378

Where non obligated organisations supply the materials (as would be the case for local authorities) the income from trading the PRNs they receive through a compliance organisation can help to meet the costs of recycling.

There is scope to work with catering customers particularly, and with institutions (colleges, schools, prisons) whose wastes may be household or municipal according to source. A Trade Waste Audit would be a necessary first step.

If a 45% recycling rate for household waste is achieved in 2010, of which 18% each is contributed by green and organic waste, then 155,656 tonnes will be diverted from landfill. This just exceeds the 154,123 likely to be required to meet the EU target.

If a 50% recycling rate is achieved in 2010, of which 20% each is contributed by the green and organic waste streams, then 172,952 tonnes will be diverted, a margin of 18,000 tonnes over the EU target.

However, at the 45% level, there is little margin for error and the partners will need to contribute some diversion of biodegradable waste from the trade component of municipal waste to be sure of reaching the EU target. At the 50% level, the 20% contributed by green waste is so close to the theoretical share of 21% that it would be almost impossible to achieve; here too, it would be easier to divert material from the trade waste stream.

Essentially, these calculations show that the anticipated targets and material shares for recycling of household waste in 2010 will also enable the BMW reduction targets to be met; the certainty of doing so can be increased by recovering some biodegradable material from the

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trade waste stream (as indicated in paragraph 5, above). This calculation will be repeated in subsequent reviews of the strategy and extended for 2013 and 2020, as part of the decision making process on the choice of waste processing technologies.

4.8 How and When

As outlined in the preceding sections, our overall strategy is:

- To focus on the recycling of household waste in the period to 2005/6 by means of:
 - Kerbside dry recyclables coverage (towards 100%).
 - Kerbside green waste expansion (towards 50%).
 - Maximum recycling at HWRCs.
 - Awareness raising to strengthen participation.
 - Quality home composting.
- To carry out a procurement process from 2003-2005, to put in place contracts for 2007-2027 which will:
 - Continue to deliver the recycling rates achieved at contract commencement.
 - Increase those rates further, subject to market expansion.
 - Bring on stream alternatives so that the client and contractor have options (“the safety zone”).
- These options are likely to include one or more of:
 - Anaerobic digestion of organic wastes
 - Mixed waste processing
 - Energy recovery through gasification and pyrolysis

We envisage these contracts coming on stream to enable achievement of the first targets in the EU Landfill Directive by 2010, and progressively introduced by 2020.

We envisage a range of small/medium sized plants which fits best with the dispersed population in our rural areas and with our ‘safety zone’ strategy, rather than proposing one facility for the strategy area.

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Part 5 – Potential Future Developments requiring further discussion.

5.1 Possible future organisation of Waste Management Services

5.1.1 Future working with neighbouring authorities

Discussions have taken place recently with representatives of Lincolnshire County Council, with a view to sharing waste management facilities with the District Councils in Southern Lincolnshire, that border Cambridgeshire and Peterborough. Mention has already been made of the involvement of the South Holland District Council in the Peterborough Cell project, and it is this sort of co-operation that Lincolnshire County Council have in mind for other districts such as South Kesteven and Boston.

Whilst Lincolnshire County Council is keen for these Councils to have a more localised outlet for their recycled materials, they are also interested in whatever waste treatment facilities are eventually adopted in the northern part of the strategy area, to see whether there can be some joint use.

It is intended that further discussions with Lincolnshire County Council, and the District Councils concerned, will take place in 2002.

All of the strategy partners are members of the Anglian Regional Waste Awareness Campaign. This is a consortium of over 45 local authorities in 7 counties in the Anglia region. The group runs an annual waste awareness campaign with a significant and measurable impact on the public's perception of waste.

Cambridgeshire County Council has recently initiated the establishment of a group of like-minded waste disposal authorities to develop markets for recycle. The group comprises authorities from the East Midlands to the South East of England.

5.1.2 Future arrangements within the strategy area.

As far as future-working arrangements between the strategy partners is concerned, there is considered to be some merit in exploring the possibility of setting up some form of joint provision of waste management facilities. The current legislative framework for waste management, The Local Government Act 1972, divided the collection and disposal of household waste neatly into two parts and gave the responsibility to different authorities. This created a potentially divisive system of service delivery.

A concept put forward by the Improvement and Development Agency (IdeA) is the creation of a special purpose vehicle company (SPV). This would be wholly owned by as many of the partners as wish to be involved, and would be charged with the task of providing the whole of the waste service in the areas

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involved. This is, however, a major issue for the partners and will need careful consideration.

- 5.1.3 In addition to the aspirations shown above, the partners also believe that closer working with packaging waste compliance schemes such as Valpak and with community groups, where these can be established, will be of benefit to all concerned. The partners intend to pursue this course of action.

5.2 Location of new waste management facilities

Throughout this strategy reference is made to the need for additional waste treatment facilities. These facilities might range from a simple waste transfer station to a multi-million pound waste-to-energy plant. The location of such facilities is being addressed in the Cambridgeshire and Peterborough Waste Local Plan the production of which is at an advanced stage. Waste treatment facilities needed to implement this Waste Strategy will be located in accordance with the WLP when the Waste Planning Authority has adopted this.

5.2.1 The need for increased facilities to aid recycling in the south-eastern corner of the strategy area.

In early 2002 the dry recyclables material collected in East Cambridgeshire, Cambridge City and South Cambridgeshire is sorted at the kerbside and is taken to one of two transfer stations for bulking up, and there is no need for a Material Recycling Facility (MRF).

Whilst these arrangements are considered to be robust for the quantities of material being handled there may be a need for a MRF in the future. If this proves to be the case then such a facility will be a product of the procurement process and the location will be governed by the availability of sites to be identified in the Waste Local Plan.

5.3 The need for waste charging

In section 2.3.6 reference is made to the possibility of using direct charging for waste services as a 'tool' to increase participation in recycling schemes and encourage waste minimisation. Whilst, overall, the strategy partners take a fairly neutral view on waste charging there is a view in some quarters that there is a role for direct charging. Central Governments own position needs to be clarified.

5.4 Future procurement of contracts

As part of the development of the strategy, the issue of joint procurement is being investigated and this may be beneficial for all partners or specific groupings within the strategy area in terms of contracts, services and facilities. In some cases, this joint working may extend outside of the strategy area where it proves to be advantageous to all parties. In order to allow for the

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possibility of joint procurement, partners in the strategy area are attempting to ensure that any new contracts terminate by 2007 or if they terminate after this date they are capable of being subsumed by the new contracts.

An outline of the timescale for the procurement of new contracts is as follows:

- Investigate relevance and opportunities presented by PPP and PFI and establish principles of procurement by December 2002.
- Investigate and report on relevance of available technologies by December 2002.
- Insert OJ notice and commence procurement by 'negotiated procedure' by March 2003.
- Complete procurement process and award contracts by March 2005.
- Commence new 'interim' contract July 2007.
- Open permanent treatment facilities for 'residual' waste by March 2010.

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Part 6 – The Cost of Implementing the Strategy

It is difficult to put a definite cost to implementing a strategy of this nature because of the many variables that have to be taken account of and the long-term nature of the proposals.

In Part 3 section 3.2 the cost of current and proposed recycling initiatives is set out. However, this information is not regarded as comprehensive and will need to be re-visited in the light of developing circumstances.

The cost of achieving the BVPI targets up to 2005/6 has recently been the subject of a study undertaken for the CSS (County Surveyors Society) by the consultants AEAT.

The study was based on three shire county areas:

West Sussex
North Yorkshire and
Kent.

Reproduced below is a table taken from the study which gives some clue as to the likely escalation of costs:

Table 1: % Cost increase (over current year) to meet BVPI targets

	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6
West Sussex	0	5	9	47	50	55
North Yorkshire	0	4	9	26	30	40
Kent	0	5	10	36	53	58

“Table 1 shows the cost increases (collection and disposal elements are included) that the three authorities can anticipate for meeting BVPI targets i.e. the cost increase over the current year costs. The initial rise in costs is about 10% to 2002/3 but the cost then increases dramatically to between 25% and ~60% for the BVPI target years.”

Much of the burden of increase in costs will fall on the collection authorities as they move from a single to multi-bin collection system – in order to deliver the waste for recycling. The waste collection authorities of the three case study areas can expect to see an increase of between 30% (N Yorkshire & Kent) and 85% (W. Sussex) over current costs.”

If this study is accurate (and there is no reason to think that it is not) then the cost burden will be considerable.

The provision of financial resources to sustain this strategy will be enormously challenging.

The strategy partners are considering inviting consultants to undertake a similar study on their behalf.

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the 21st. Century**