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### **Waste Management Targets for Hertfordshire.**

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#### **1. Purpose of Report**

- 1.1 To examine national, regional and local targets relating to waste management, and consider current figures showing the level of waste recovery achieved in Hertfordshire to provide a basis to evaluate the requirement for additional waste management facilities to ensure these targets are met.

#### **2. Background**

- 2.1 Guidance on waste management and the targets to be achieved is set out in a number of tiered documents, from Europe down to national, regional and local level.
- 2.2 European Union directives provide the legislative and guidance framework to encourage a reduction in waste production and for working towards sustainable waste management practices.
- 2.3 Government legislation and advice has helped shape the UK Waste Strategy 2000. The development of Regional Planning Guidance (the emerging RPG 14, which will ultimately be expressed as the Regional Spatial Strategy) has taken on board the Regional Waste Management Strategy, adopted in 2003. This advice has, in turn, has been incorporated into the Hertfordshire Joint Municipal Waste Strategy, also adopted in 2003.
- 2.4 Recent legislation and advice includes:
  - The Landfill Directive and Landfill Regulations.
  - UK Waste Strategy 2000 – mainly used to determine current national targets together with policies to encourage a sustainable waste management approach to meeting the current and future needs.
  - Planning Policy Guidance (PPG) for England– specifically PPG10 ‘Planning and Waste Management’
  - The Regional Waste Management Strategy, adopted 2003
  - Hertfordshire’s Waste Strategy 2002-2024 (for municipal waste), adopted 2003

- 2.5 It is the role of the Waste Local Plan to provide the strategic and operational policies by which applications for new waste management facilities would be judged in order to meet the targets.

### **3. TARGETS**

#### **Adopted Waste Local Plan 1995 – 2005: current targets**

- 3.1 The targets incorporated in the Adopted Waste Local Plan reflect those set out in the Government's White Paper, "Making Waste Work", published in 1995, the relevant guidance at the time. These include:

#### **Minimisation (Prevention) Re-Use and Recycling**

- 25% reduction after 2000 in the 1987-93 volume of construction and demolition waste requiring disposal;
- 25% reduction after 2000 in the 1987-93 volume of non-inert waste (including industrial and commercial waste) requiring disposal or the use of alternative waste treatment technologies;
- 25% National household (now referred to as municipal) waste recycling target by the year 2000 to apply to household waste arising in Hertfordshire.

#### **Recovery by materials recycling, energy recovery and composting**

- 40% recovery of municipal waste by 2005;
- 50% (provisional target) recovery of industrial and commercial waste by 2005.

#### **3.2 *Municipal Waste***

The Government's Waste Strategy 2000, maintains the target of recovering 40% of municipal waste by 2005 and introduces targets for recycling or composting 17% of household Waste by 2003, rising to 25% by 2005. These targets have been incorporated into the Hertfordshire Joint Municipal Waste Management Strategy. In addition, the Hertfordshire authorities have agreed to set a target to recycle and/or compost 50% of household waste by 2012, or earlier.

- 3.3 The county has a shortfall of void space for non-inert waste with limited future landfill capacity from current planning permissions. Current landfill space will reach full capacity by 2007. Alternative waste management facilities will therefore need to come on stream if the targets are to be met.

### 3.4 Clean Materials Recovery Facilities (MRF)

To achieve the 2005/06 targets it will be necessary to provide between 1 and 4 sites for clean MRF processing based on an operating capacity of between 25,000 tonnes per annum (tpa) – 100,000 tpa. The number of sites would need to double to achieve the 50% recycling target in 2012 and increase to between 3 – 12 sites by the end of the strategy period. Given a 2 to 3 year lead in time, work would have to start during 2002/2003 to ensure that sufficient MRF capacity is in place to achieve the 2005/06 targets.

### 3.5 Composting

Based on current estimates of future waste growth and composition, to achieve the 2005/06 recycling target it will be necessary to provide between 3 sites for centralised composting based on an optimum size of 20-25,000 tpa (with a range of 1 – 4 sites based on 10,000 – 50,000 tpa). The number of sites would need to double to achieve the 50% recycling target in 2012 and increase to 8 sites by the end of the strategy period . Given a 2 to 3 year lead in time, work would have to start during 2002/2003 to ensure that sufficient composting capacity is in place to achieve the 2005/06 targets.

### 3.6 Residual Treatment Facilities

In order to treat the residual waste there are a number of options in terms of waste management processes. The following table looks at the amount of waste generated and the residual waste that would need to be managed.

<b>YEAR</b>	<b>2003/4</b>	<b>2005/6</b>	<b>2010/11</b>	<b>2012</b>	<b>2015</b>	<b>2024</b>
<b>Total estimated Household Waste (000 tonnes)</b>	595	625	685	722	778	946
<b>National Recycling Standard % (Brackets denote WSDG targets)</b>	20%	30%	30%	33% (50%)	33% (50%)	33% (50%)
<b>National Recovery Standard %</b>	---	40%	45%	45%	67%	67%
<b>Target recycling (000 tonnes)</b>	119	188	206	361	389	473
<b>Residual waste (000 tonnes)</b>	476	437	479	417	389	473

3.7 The residual treatments being explored are Anaerobic Digestion, Biological Mechanical Treatment and Gasification/Pyrolysis in order to meet the future targets for the reduction of biological waste to landfill. The extent of such processes will be dependent on the actual performance of recycling and composting schemes in diverting waste from the residual waste stream. It is already apparent that it will not be possible to achieve Landfill Reduction targets in 2013/14 and beyond without using a recovery processing technology. Consequently it is estimated that that the following facilities would be required.

YEAR		2005/6	2010/1	2012/1	2020/2	2023/2
			1	3	1	4
<i>Type of waste facility</i>	<i>Optimum size (tpa)</i>	<i>Likely number required</i>				
<b>MRFs</b>	60,000	2	4	4	5	6
<b>Composting Sites</b>	25,000	3	5	6	7	8
<b>Residual Treatment Facilities (including transfer)</b>	150,000	1	2	2	3	3

### 3.8 Other waste streams

The Government's Waste Strategy 2000 includes a target to reduce the amount of industrial and commercial waste (which includes construction and demolition waste) landfilled to 85% of 1998 levels by 2005. For Hertfordshire it is estimated that 541,000 tonnes were landfilled in 1998, so the target would be to reduce this to 459,00 tonnes by 2005

- 3.9 The following table indicates the assumptions in the Regional Waste Management Strategy and the levels of waste recovery likely to be needed if the Government's targets and aims are to met. The Strategy assumes that commercial and industrial wastes will stabilise at around the 2000 levels. For Hertfordshire, this means halving the residual amount of commercial and industrial waste by 2010 and thereafter.

		2000	2005	2010	2015	2020
Commercial & Industrial Waste	Waste Produced	1104	1104	1104	1104	1104
	Recovered	563	729	828	828	828
	Residual	541	375	276	276	276

- 3.10 The latest survey information indicates that just over half the waste produced is currently recovered. The target for 2005 is 66% recovery, which will mean recovering a further 166,000 tonnes of waste. This is likely to be secured by greater separation of waste at source and by the collection companies carrying out increased sorting of collected material. Increases in landfill tax and new regulations limiting the range of materials going into landfills will be an initiative to move in this direction. By 2010 where recovery of 75% of the waste is the aim (representing a further 265,000 tonnes to be recovered), development of the above methods will be important, so that effectively all material is sorted or treated to remove recyclables.

- 3.11 Landfill capacity is estimated at 279,000 tonnes per annum in 2000, with a likely capacity of 279,000 tonnes per annum in 2015. In order to conserve this capacity for wastes that can only be disposed of by landfill it will be important for the Waste Local Plan to identify sufficient sites for other waste management processes.
- 3.12 Special and hazardous wastes are likely to pose a disposal problem as co-disposal of these wastes comes to an end. Further information on the scale and nature of these wastes and their disposal needs is vital if a coherent local and regional approach is to be developed, and should have high priority.

#### **4. Current position against targets in Adopted Waste Local Plan**

- 4.1 Between 1987 and 1993 some 8.5 million tonnes of Category A waste (construction and demolition) and 3.9 million tonnes of Category B waste (commercial) was disposed of in Hertfordshire, giving a total of 12.4 million tonnes and an average of 2.1 million tonnes per annum. The target required that this should be reduced by 25% in 2000, to 1.6 million tonnes. By 1998 this figure had fallen to 1.1 million tonnes with 445,000 tonnes of construction and demolition and 112,000 tonnes of commercial/industrial waste being landfilled, giving a total of 557,000 tonnes.
- 4.2 In terms of municipal waste the target of recycling 25% of household waste by 2000 was not met. However, the revised target of 17% by 2003 has been met for the county as a whole, standing at about 18-19%, including waste recycled through the Household Waste Recycling Centres.
- 4.3 The introduction of new legislation, affecting the disposal of Electrical, Electronic appliances (the WEEE directive), Tyres, Vehicle End of Life Directive, together with the effect of increasing costs of disposal at waste landfill sites, and the costs of sending recyclates to specialised reprocessing plants, will have an influence in the quantity of waste to be managed.
- 4.4 As current and proposed legislation comes into force, it is anticipated that the quantity of materials available for reprocessing will increase. As part of the implementation of the Joint Municipal Waste Management Strategy, a review of the sites available for waste reduction/processing and their capacities is needed. From these figures, together with the regional targets for industrial and commercial waste, an indication for possible future waste management facilities can then be translated into the Waste Local Plan.

#### **5. Conclusion**

- 5.1 Inevitably, given the need for Hertfordshire to move towards self-sufficiency in dealing with its own waste, the indications at this stage are that there is a shortfall in sites needed to manage the total waste arisings in the county. Whilst the intention is to move away from landfill in terms of the municipal waste stream, there are likely to be residual wastes that will need to be

disposed of in this way, together with residual wastes from the commercial/industrial sector.