

Greater Manchester Waste DPD

Note 2

a) Para 2.2 of the DPD indicates the Headline Waste Capacity Requirements and states that a total of 5.2mt of energy recovery capacity will be required between 2012 and 2027. What is the basis for suggesting that this would be accommodated at up to 3 larger facilities or a maximum of 5 smaller energy recovery facilities? Why those particular numbers?

The Reasoned Justification for Policy 1, specifically paragraph 2.35 p38 of the Waste Plan sets out how the proposed number of facilities has been identified. This states that the small facilities are based on a capacity of 75,000t per annum to make such a facility practical to operate, or a larger capacity of 120,000t. There are also larger facilities being built at capacities of up to 600,000t per annum (Ineos Chlor) and if such a facility were to come forward in Greater Manchester this would meet the requirements.

The information in the box under paragraph 2.2 p27 of the Waste Plan is indicative, giving users of the Plan an idea of the number of facilities which may be required over the plan period.







b) Para 3.9 of the DPD indicates that the purpose of Policy 4 is to make provision for the waste management facilities to meet the capacity identified in the Plan. How do the facilities requirements, as suggested in a) above, fit with the Policy 4 Site Allocations? For example, if 3 larger facilities were to come forward, which of the 7 Sites in Policy 4 would be acceptable.

Table 9 of Policy 4 indicates which of the allocated sites would be suitable for energy recovery facilities, however this is also dependent on the technology proposed and the size of the facility. To assist with understanding the ability of each site to provide for this capacity Appendix 1 (p4 of this note) sets out the types of waste facility each site can accommodate and the land take.

Only two of the sites are identified as being suitable for Mechanical Heat Treatment, Advanced Thermal Treatment, and Conventional Thermal Treatment, these are TR8a in Trafford and W4 in Wigan, therefore these would be more acceptable for such waste facilities compared to the other sites listed in Table 9. However, all 7 sites are suitable for anaerobic digestion, therefore could be used to meet this need.

c) Is it possible to give indications of the typical throughput (tonnes per annum) of the facilities which could be provided in the various Facility Categories (A – I) in Table 8.

The Needs Assessment (2007) and Needs Assessment Update (2010) provide average capacities for these facilities and they are listed below.

<u>Key to facility types</u>	<u>Average capacity (000s tonnes)</u>
 Landfill (non-hazardous)	500
 Incineration with Energy Recovery	75 or 120
 Composting	40
 Landfill (hazardous)	120
 Landfill (C+D)	170
 Recycling (aggregates, C+D)	80

In relation to Table 8

Category A would relate to Recycling, C&D

Categories B & C to composting

Categories D,E & G to Incineration with Energy Recovery

The Needs Assessment does not identify a capacity gap for recycling and treatment of Commercial & Industrial waste however as discussed in Chapter 2 of the Waste Plan this does not mean new facilities would not receive planning permission. Information for the average size for such facilities has been taken from ODPM- Planning for Waste Management Facilities 2004 (NP015).

Category F Materials Recovery Facility - 50,000tpa

Category H Mechanical Biological Treatment 50,000tpa

Category I Anaerobic digestion 5,000-40,000tpa

d) Is the first sentence of para 2.35 correct? Should it read C&I Waste: Energy Recovery?

This is an error, para 2.35 should indeed read C&I Waste: Energy Recovery. This will be added to a list of additional minor changes.

e) Para 2.38 states that the major component of non hazardous waste for disposal is C&I waste. Does this also include an element of MSW? Why is it not possible to divert yet more waste from landfill into the various treatment facilities, thereby reducing further the demand for additional disposal capacity? This might even constitute Scenario 4. Was such a Scenario considered and rejected in the very early stages of the DPD preparation?

With the exception of Wigan, MSW has been dealt with under the provision of facilities through the Greater Manchester PFI. However the residual waste requiring disposal is included in the requirements for non-hazardous waste disposal.

The Waste Plan is based on Scenario 2 of the Needs Assessment which seeks to maximise recycling and recovery of waste. Further detail on this Scenario can be found in Appendix 2 which provides an extract from the Issues and Options Report Stage 2: Built Facilities (CDC006). This information sets out how Scenario 2 seeks to maximise recycling and recovery and move waste away from disposal which has direct implications for the amount of waste requiring landfill. Further to this point, Appendix 3

lists the targets which Scenario 2 is seeking to achieve, this is taken from the Needs Assessment 2007 (TD009). The modelling used to inform the Needs Assessment and the capacity requirements indicated in the Waste Plan assumes that this high level of recycling and recovery of waste is achieved and this subsequently results in lower levels of landfill being planned for.

A scenario 4 was therefore not considered as Scenario 2 already deals with this issue. The alternative scenarios considered were Scenario 1 – baseline and Scenario 3 median levels of increased recycling and recovery. Both of these were rejected as they did not reflect what the Plan was trying to achieve and are not in line with the principles of the Waste Hierarchy.

f) The DPD does not make any allocations for the disposal of inert residual waste (Construction and Demolition). Do the existing landfill sites have waste acceptance criteria which would exclude recyclable C&D waste? Alternatively, are disincentives, such as Landfill Tax, sufficient to keep C&D waste from taking up capacity in non hazardous landfill allocations?

The existing non-hazardous landfills do not have waste acceptance criteria restrictions in place, however as you state the reasons for this are the existing disincentives such as landfill tax.

The Waste Plan does not include site allocations for the disposal of inert waste, the reasons for which are set out in paragraphs 2.49 to 2.51 of the Waste Plan. In addition to support this approach a document has been produced entitled 'Approach to managing construction and demolition and excavation waste' (library document reference TD019) which sets out in more detail how this waste stream will be managed in Greater Manchester.

There are existing landfills which will continue to accept inert waste, however evidence from national and local studies has indicated that this waste is dealt with through engineering projects, or daily cover etc and does not require disposal as a first option. Providing large capacity facilities for the disposal of inert waste acts as a disincentive to treat this material as a resource and does not reflect the ideal of the waste hierarchy.

Appendix 1 Available Land Area for Waste Management Sites

The latest Needs Assessment has identified that between 2012 and 2027, a maximum of 5 new energy recovery facilities will be required to manage Greater Manchester's waste (these include MBT facilities, Advanced Thermal Treatment etc.). In calculating this figure of 5 facilities, the Needs Assessment has used an average capacity of 75,000 tonnes per annum, per facility.

The average land area required for these types of facilities is between 2 and 4 ha for a facility which can process between 75,000 and 120,000 tonnes of waste per annum (tpa).

As the Needs Assessment has used an individual facility capacity of 75,000 tpa when calculating the total number of facilities required, it is reasonable to state that each facility will cover approximately 2ha. Therefore, 5 facilities, each requiring 2ha of land area will require 10 hectares of land in total.

The sites listed on the following page have not yet received any objections from landowners and so remain in the Waste Plan. The total area of these sites is 13.85ha, this is an excess of 3.85ha over the 10 hectares required. There is also an additional 1,084.95 ha from area allocations, although much of this land will already be developed for other uses.

The table below also states what facilities are suitable for each site and how much land area the facility type requires.

Last updated – 7th February 2011 (two areas – SL2 and RD6 amended slightly)

Site ref	Site name	District	Size (hectares)	Facility Site is suitable for (and hectares required for each)
BL9	Watersmeeting C South Triangle	Bolton	0.72	AD (0.15-0.6) MBT (2)
BL11	226-228 Waterloo Street	Bolton	0.45	AD (0.15-0.6)
OL4	Land off Mossdown Road	Oldham	1.09	AD (0.15-0.6), MBT (2), Open facilities (2-3)
OL5	Land at Millstream Lane, Clayton Bridge	Oldham	0.55	AD (0.15-0.6), MBT (2), Open facilities (2-3)
ST2	Plot 5, Bredbury Parkway	Stockport	0.39	AD (0.15-0.6)
TR8a	Land adjacent to Tank Farm Chemical Treatment Works	Trafford	1.79	ATT (1-5), MRF (1-2), AD (0.15-0.6), MHT(2), MBT (1-2), IVC (1-2),
W4	CA Site, Makerfield Way	Wigan	8.86	CTT (2-5), ATT (1-5), MRF (1-2), AD (0.15-0.6), MHT(2), MBT (1-2), IVC (1-2),

Appendix 2: Information on the Needs Assessment from earlier stages of consultation on the Waste Plan

Document Reference: CDC006

Stage 2 Issues and Options: Built Facilities (pg 19 para 2.15 – 2.21)

Utilising the latest data (as at mid September 2007) existing capacity information was assembled and collated into a waste facility capacity database and used to inform the preparation of the Needs Assessment. As part of the Needs Assessment a small number of scenarios were considered that reflected a realistic range of possibilities that could be implemented.

In developing the scenarios certain assumptions were made in particular how the various categories of waste arisings would be managed. The initial scenarios therefore include the assumption that requirements for municipal waste take up all existing or planned capacity that it requires. This means that the model provides an assessment capacity and capacity gaps that relate primarily to commercial and industrial waste sector arisings with respect to treatment and disposal management methods.

The initial modelling considered three waste management scenarios:

- Scenario 1 – baseline, which reflects the current status and forward planning position.
- Scenario 2 – maximised recycling and recovery of commercial and industrial and construction and demolition wastes.
- Scenario 3 – a median level of increased recycling and recovery.

The three scenarios show a range of different capacity requirements depending on how waste is managed within the waste management hierarchy. A comparison of the capacity gap at year 2025 across the three scenarios is shown below.

Table 5 A comparison of the capacity gap at year 2025 across the 3 scenarios

Projected Gap in Capacity Requirement 2025 (000s tonnes)			
Waste Management	Scenario 1	Scenario 2	Scenario 3
Landfill (non hazardous)	-1518	-816	-987
Incineration with Energy Recovery	-82	-114	-221
Treatment Plant	995	995	995
Recycling	670	12	284
Composting	-121	-133	-127
Landfill (hazardous)	-124	-124	-124
Landfill (C&D)	-2028	-1014	-1014
Recycling (aggregates, C&D)	381	-633	-633

It is possible to see from the table above that both Scenarios 2 and 3 decrease the requirement for landfill and increase the recycling requirement compared with baseline Scenario 1. Scenario 3 has lower levels of recycling with more waste materials available for energy recovery in comparison with Scenario 2. The energy recovery requirement for Scenario 3 is approximately 75% higher than Scenario 2.

Although Scenario 2 will require a significant change in the way in which waste is managed there are a number of factors which suggest that higher levels of recycling and recovery could be achieved such as the increasing landfill tax, rising recyclate material values, increasing producer responsibility legislation and the adoption of the new EU Framework Directive.

As such, Greater Manchester will move forward with Scenario 2 which maximises recycling and recovery and significantly decreases the requirement for landfill, in line with the waste hierarchy. The number of facilities required as a result of this scenario has been set out by the Needs Assessment although it is important to note this number is based on an indicative capacity for each facility. These facilities will be required to meet recycling/composting, energy recovery and disposal as set out in the waste hierarchy, following the consideration of reduction/reuse.

Document Ref: CDC019

Preferred Option 'Background Information' Report pg 15-16

The Greater Manchester Authorities commissioned a detailed Needs Assessment in 2007 which provides information on waste arisings for the principal waste streams namely, commercial and industrial, construction and demolition, municipal, hazardous, agricultural and low level radioactive waste and where there may be a capacity gap between now and 2025. The Needs

Assessment developed three scenarios for modelling the capacity gap, based on different recycling and recovery rates. Following consultation, Scenario 2 which maximises recycling and recovery and significantly decreases the requirement for landfill, in line with the waste hierarchy, was chosen as the preferred approach for Greater Manchester. The number of facilities required as a result of this scenario has been set out by the Needs Assessment although it is important to note this number is based on an indicative capacity for each facility. These facilities will be required to meet recycling/composting, energy recovery and disposal as set out in the waste hierarchy, following the consideration of reduction/reuse.

Scenario 2 of the Needs Assessment has been identified as a preferred route for identifying future capacity requirements in Greater Manchester as this offers the best approach for moving waste up the waste hierarchy. Under this scenario it is anticipated that fewer waste management facilities for disposal and incineration with energy recovery will be required as a result of the overall aim of maximising recycling and recovery of waste. However there is likely to be a need for more recycling and recovery facilities to deal with diverted waste streams which are accounted for in the overall capacity gap.

Scenario 2 was developed on an assumption that Greater Manchester would seek to maximise levels of waste recycling and recovery which would reduce the need for landfill. These assumptions are recognised through the policies included in later chapters of the Preferred Option Report.

Table 1 – Sites Remaining in the Waste Plan

Appendix 3: Extracts from Needs Assessment 2007

Baseline: Median levels of increased recycling and recovery are achieved

This assumes that:

- MWMS targets for recycling and diversion from landfill are achieved
- C&I and CD&E waste arisings are managed
 - by 2010 50% recyclable 10% possibly recyclable and 50% of remaining material used for energy recovery
 - by 2015 75% recyclable 25% possibly recyclable and 50% of remaining material used for energy recovery
- CD&E 50% landfill diversion 2012

Key model run outputs covered are for dates of 2010, 2015, 2020 and 2025.

Taken from page 34 of the needs Assessment 2007

5.2.1 SCENARIO 2 CAPACITY REQUIREMENTS

Maximising recycling and recovery will produce some important differences in the capacity requirements for waste management methods. This is illustrated in **Table 7** below. This shows that by 2025 with maximised recycling and recovery there will be a need for an additional recycling capacity just under 1 million tonnes compared with the existing capacity in 2007. At the same time the annual landfill capacity would drop to 25% of the current annual requirement (491,000 tonnes 2025 as compared to 1,900,000 tonnes in 2007). There will also be a substantial need for additional recycling of construction, demolition and excavation wastes (over 1700,000 tonnes).

Taken from p 42 of the Needs Assessment 2007.