Topic Note – New Waste Management Capacity

1. This statement has been prepared to inform the Independent Examination for the submitted Core Strategy and Development Control Policies Development Plan Document (DPD) of the Leicestershire and Leicester Waste Development Framework.

2. This Statement sets out the Councils' response to the Schedule of Issues and Matters for Discussion prepared by the Inspector in respect of new waste management capacity. Where it is appropriate, the Councils' response utilises and refers to material in the Waste Needs Assessment already submitted.

3. The Inspector requested that this topic note should have regard to the related questions in the Issues and Matters for Discussion document, Waste – New Waste Management Capacity. He stated that this topic note could include a re-write of Paragraphs 4.1-4.7 but should not draw on new evidence or necessitate revisiting the sustainability appraisal. In particular, this topic note should be clear and specific about the number and size of facilities or range of facilities of different types that it is envisaged will be required and the key dates at which related facilities should be in place.

Background Section

4. Related questions on the Background Section in the Issues and Matters for Discussion document, Waste – New Waste Management Capacity prepared by the Inspector are as follows:
    1. Are the proposals for new waste management capacity firmly based on securing capacity equal to the amount of waste generated and requiring management with the framework area? (Para 2.2)
    2. In Para 2.12, would it be better to use the same target dates as in Para 2.10? How do these targets compare?
    3. Would it be better to include the municipal waste targets for Leicester City within the DPD? (Para 2.12)
    4. What is the DPD target for the reduction of C&I waste sent to landfill? (Para 2.13) What are the targets for managing C&D waste?
    5. What is the basis of the 5% reduction for Rutland? (Para 2.19) Is this a 5% reduction of the local apportionment or 5% off the total for the region?
    6. With regard to managing the municipal waste of Leicester City (Para 2.30), will there be shortfalls in the future in the capacity of available facilities (2.79% at 2014/15 and 9.24% at 2019/20) and should specific provision be made within the DPD?
    7. In Para 2.34, would longer term projections be helpful if available?
    8. Is there any intention of making provision for waste arising from outside the county? (Para 2.35)

9. What reliance is being placed on facilities outside the framework area? Is this appropriate? (Para 2.42)

5. The Councils' responses to these questions are indicated in italics together with the relevant question number.

6. The emerging Regional Spatial Strategy (RSS) (with the Secretary of State's proposed changes) provides an apportionment for sub-regions within the East Midlands of the Commercial & Industrial (C&I), Construction & Demolition (C&D) and Municipal waste streams which require management. Emerging policy 37 of the RSS requires waste planning authorities to make provision for waste management capacity equal to the amount generated and requiring management in their areas using this apportionment data. This is in accordance with PPS10: Planning for Sustainable Waste Management which states that "the core strategy of a waste planning authority should set out policies and proposals for waste management in line with the RSS" and "…there should be no need to reopen consideration of either its principles or the annual rates of waste to be managed". *It is the intention of the Core Strategy to provide sufficient facilities within the framework area to manage an amount of waste equal to the amount generated in this area as expressed in the emerging RSS. By doing so this ensures waste movements across sub-regional boundaries are catered for. Effectively, a quid pro quo stance is taken where waste can move out of and into the framework area due to proximity, contracts or specialist management requirements. The strategy does not preclude these movements. (Qus 1, 8 & 9)*

7. The appropriate sub-regional apportionment published in the emerging RSS is that for Leicestershire, Leicester and Rutland. The plan does not provide for the management of Rutland's waste which, is being dealt with in a Core Strategy produced by Rutland County Council. *To calculate a figure for Leicestershire and Leicester this sub-regional apportionment was reduced by 5% thereby removing that attributable to Rutland. The 5% was a rounding-up of the contribution Rutland's municipal waste and population make to the totals for Leicestershire, Leicester and Rutland. The 5% apportioned to Rutland has been agreed with Rutland County Council and EMRA. (Qu 5)*

8. To manage municipal waste, targets have been set (outside of the emerging RSS) by the National Waste Strategy 2007 and the Leicestershire Municipal Waste Strategy. The Municipal Waste Strategy (MWS) works to different time-scales than the apportionments as presented in the emerging RSS. Transposing the County's Municipal Waste Strategy targets for recycling and composting in paragraph 2.12 to the RSS target years was undertaken in paragraph 4.9 of the June 2008 Waste Needs Assessment. *These were as follows: 50% by 2010, 53% by 2015 and 58% by 2017. These target figures could be included in the Core Strategy. The Municipal Waste Strategy targets are a fraction*

of that required by the National Strategy, i.e. recycling and composting is an element of recovering value. By meeting the MWS recycling and RSS recovery targets those targets set by the National Strategy for recovering value will be exceeded. (Qu 2).

9. The Municipal Waste Strategy targets are set for the County only. Paragraph 2.12 of the Core Strategy states that for the City, targets will be consistent with those in the RSS and paragraph 2.18 (page 8) states the minimum target set. *The Councils are happy to set this out in a manner consistent with that in paragraphs 2.10, 2.11 and 2.12. (Qu 3)*

   The Regional Spatial Strategy sets the following targets:

   - *To recycle or compost at least 30% of municipal waste by 2010*
   - *To recycle or compost at least 50% of municipal waste by 2015*
   - *To recycle or compost at least 50% of municipal waste by 2020*

10. Using the emerging RSS' recycling/composting requirements combined with the RSS' landfill diversion and the City's current, anticipated recovery rate there will be a shortage in the City's capacity. This is not capacity in terms of the current facilities being unable to deal with the predicted increases in the amount of waste but in terms of those facilities not having the capacity to reach the recovery levels set by the emerging RSS. This is a matter which will be addressed in the City's Municipal Waste Strategy in 2010/11. *This shortfall has been included in the calculations for recovery shortfall for the framework area and given the situation in the City it was not considered necessary to make specific provision in the Core Strategy. (Qu 6)*

11. The National Waste Strategy target mentioned in paragraph 2.13 of the Core Strategy has not been set by Central Government. Targets for the management of the framework area's waste are all derived from the emerging RSS which was itself informed from the Regional Waste Strategy (RWS). The basis of the RWS's data on C&I and C&D waste were nationally collected data from the Environment Agency and the Department for Communities and Local Government, respectively. Surveys on C&I waste are no longer carried out, whereas C&D is undertaken biennially. Other than municipal waste, collected data on C&I and C&D waste is not comprehensive. In the House of Lords Science and Technology Committee report on Waste Reduction published 20 August 2008 it was stated that "..there appears to be a lack of comprehensive data on the variety of waste streams in the UK" and that it was accepted that there were gaps in the data but "..rather than attempting to plug all those gaps the Government has decided to focus on priority waste streams, such as food waste…". The gathering of this data on a sub regional scale is unrealistic due to cost to the Councils to undertake such a survey regularly. A one-off survey would give a snapshot of what was occurring at one point in time and would elicit no greater knowledge. *The C&I targets reflect those set in the*

emerging RSS which predict a reduction in C&I disposal over the plan period but do not reflect any National targets (none have been set). Policy CS1 of the Core Strategy states that the regional apportionments for recycling and composting are minimum levels to be achieved. Any new capacity provided above this, potentially, reduces the amount to go to landfill which is expressed on page 92 of the Regional Waste Strategy – "that if it is possible to exceed recovery or recycling targets then the tonnages expressed in the disposal column will reduce accordingly". The targets for C&D are as those in the emerging RSS, as laid out in Table 2-1 of the Core Strategy (page 8); recycling of 49% and the remainder reuse and/or disposal. (Qu 4)

12. *The Councils believe the data on population levels to be adequate and the strategy sufficiently flexible should projections alter. The emerging RSS (Secretary of State's proposed changes) now projects the housing position to 2026. The housing requirement is no longer expressed as a single figure of dwellings per annum and would be better expressed by a total figure of 97,000 dwellings with 45,570 in or adjoining Leicester PUA*. (Qu 7)

Type, Size, Number and Timing of New Facilities

13. Related questions on the Type, Size, Number and Timing of New Facilities and Hazardous Waste in the Issues and Matters for Discussion document, Waste – New Waste Management Capacity prepared by the Inspector are as follows:
    10. In Paragraph 4.2, what further capacity is required for recycling and composting municipal and C&I waste at the additional key dates of 2009/10 and 2014/15? At each key date (including 2019/20), what are the likely numbers and sizes of the different types of management facilities that are likely to be required and what is their estimated land take?
    11. What is the source / basis of calculation for the tonnages of municipal waste requiring management? Is any recalculation of facilities provision necessary?
    12. Should the alternative of small C&I recycling facilities be included in Table 4.1?
    13. How many energy/waste recovery facilities would be required and what would be their land take (Para 4.3)? How many facilities would be required *at all the key* dates? Would as many as 3 smaller facilities be required at 2019/20 to manage 140,000 tonnes of municipal waste with a maximum land take of about 4.5ha? To handle the recovery shortfall of 938,095 tonnes (about 900,000 in the text), would some four larger or 19 smaller facilities be required with a maximum land take of approximately 28.5 ha?
    14. Would greater clarity be achieved in Para 4.3 if specific mention were made of the possible types of facility envisaged, eg incineration, MBT, ATT?
    15. In Para 4.4, should particular reference be drawn to the year 2015 when non-inert landfill capacity will fall to 460,000

tonnes leaving a shortfall of 540,000 tonnes? Do the figures assume that 20% of inert landfill will go into non-inert landfill sites?

16. Based on the existing non-hazardous sites, would it be better to assume that two new sites of 220-240,000 tonnes annual capacity may be needed at 2009/10 with one additional site at 2015?
17. In respect of C&D recycling (Para 4.5), is there going to be a requirement for between 12 and 39 facilities at 2009/10 with a land take of between 48 and 97.5 ha? What additional capacity would be needed at 2014/15 and 2019/20?
18. Para 4.5 refers to an "expected need for additional new inert landfill sites". How many sites will be needed at the various key dates and of what annual capacity?
19. Would a table of need for additional waste management capacity, indicating type of waste, category of treatment, required capacity at key dates and anticipated land take give greater focus to Policy CS1; other policies subject to a test of need; delivery; and monitoring? [GOEM]
21. Should management of hazardous waste from within the framework area be a specific policy consideration (Paras 2.2, 4.6 and 4.43)? Should there be greater certainty regarding existing capacity?

14. In answering the above questions paragraphs 4.2 to 4.7 have been re-written. Additional/altered text has been underlined whilst text to be removed has been scored through. The relevant question number to which amendments relate follows the text.

4.2 Municipal and commercial and industrial (C&I) wastes are managed similarly and as such it is assumed that facilities will deal with both waste streams. Calculating the need for further recycling and composting capacity for both waste streams was undertaken by subtracting current capacity from the RSS requirement. For municipal waste prior to subtracting the current capacity the RSS requirement was split into a ratio of 44:56% recycling:composting in 2010 and 2015, reversing to a 56:44% recycling:composting split in 2020. (Qu 11) Tables 4.1 and 4.2 below show the additional capacity required at the RSS key dates. ~~151,524 tonnes per annum is required for the recycling and composting of municipal and C&I waste by the end of the WDF Period~~, The tables indicate that 2 recycling and 1 composting sites are required by 2010, and a further composting site by 2015. (Qu 10) ~~Based on existing knowledge of facility types and sizes in the order of a further two materials recovery, one composting, and two C&I waste recycling facilities would be required to provide the additional capacity identified. This is summarized in Table 4.1 below, along with an indicative scale of the facilities required.~~

Table 4.1: Indicative scale and number of facilities required for the recycling of municipal and commercial & industrial waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	690,133	600,729	-89,404	2 of 50,000[1]
2015	700,667	700,729[2]	(62)	0
2020	727,836	700,729	-107	0

[1] Each site 1-2 hectares in size.

[2] Assumes 100,000 tonnes of capacity added in response to the 2010 requirement.

Table 4.2: Indicative scale and number of facilities required for the composting of municipal waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	119,042	97,427	-21,615	1 of 25,000[1]
2015	137,285	122,427[2]	-14,858	1 of 25,000[1]
2020	118,043	**147,427[3]**	**(29,384)**	0

[1] Each site 2-3 hectares in size.

[2] Assumes 25,000 tonnes of capacity added in response to the 2010 requirement.

[3] Assumes 25,000 tonnes of capacity added in response to the 2015 requirement.

~~Table 4.1: Indicative scale and number of facilities required for recycling and composting of municipal and commercial & industrial waste by 2020.~~

~~Waste Stream~~	~~Management Type~~	~~Waste Requiring Management (tonnes)~~	~~Indicative Size of Site (tonnes per annum)~~	~~Number of Sites~~	~~Land Required per Site (ha)~~
~~Municipal*~~	~~Composting~~	~~20,616~~	~~25,000~~	~~1~~	~~2-3~~
~~Municipal*~~	~~Recycling~~	~~49,920~~	~~40,000~~	~~2~~	~~1-2~~
~~Commercial & Industrial~~	~~Recycling~~	~~80,988~~	~~50,000~~	~~2~~	~~1-2~~

~~* assumes a split of the RSS' recycling/composting requirement of 44% composting and 56% recycling as per 'Waste Needs Assessment (2006)'.~~

The amount of land required to cater for these facilities by 2020 is likely to be in the order of 10~~1~~ ha.[1] Notwithstanding the above the number of sites required may be greater or lesser than those supplied to meet the needs of different sized communities. The tables provided in this section are to be used as a guide to assist in the planning for new waste management facilities. Whilst they are based on the best available information at the time they should not be seen as setting out absolute requirements.

4.3 Once the recycling and composting targets are reached there remains an element of municipal waste which needs to be

[1] Land area for potential facilities are based on 'Planning for Waste Management Facilities: A Research Study' ODPM 2004.

diverted away from landfill. Diversion, effectively some form of recovery, could be attained by a number of different methods but principally these could be anaerobic digestion, mechanical-biological treatment, autoclave or some form of thermal treatment or a combination of these. These types of processes are described in detail in the supporting text to Policy CS6. (Qu 14) T~~o meet t~~he requirements set by the RSS for landfill diversion ~~energy/value recovery of municipal and C&I waste will require~~ are displayed in Table 4.3. This shows a minimum total of ~~114,000~~ **102,138** tonnes per annum of recovery capacity will need to be found by 20**15**~~20~~. ~~Such a requirement could probably be met by 1 or 2 facilities depending on the type of treatment technology~~. By reaching the requirement for recovery in 2015 (~~96,313~~**102,138**tpa) with either two small or one large facility the infrastructure capacity would be in place to handle the further requirement of ~~17,743~~**14,056**tpa by 2020. (Qu 13)

Table 4.3: Indicative scale and number of facilities required for the recovery of municipal waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	299,153	293,328	-5,825	0
2015	461,234	364,921	-102,138[1]	2 of 50,000[2]
2020	502,104	488,048[3]	-14,056	0

[1] Assumes 2010 shortfall added to that for 2015.

[2] Or one site of 100,000 tonnes. Sites of 50,000 tonnes require around 1.5 hectares and sites of 100,000 tonnes around 4 hectares.

[3] Assumes 100,000 tonnes of capacity added in response to the 2015 requirement.

However, this is essentially a requirement for energy/value recovery from municipal waste only. The amount of residual municipal and C&I waste requiring treatment or disposal after recycling at the end of the WDF Period is estimated at around 900,000 tonnes per annum (938,095tpa). To prevent this amount all having to go to landfill between ~~a further~~ ~~5~~ four at 250,000tpa or ~~18~~ 19 at 50,000tpa energy/value recovery facilities would be required. The land requirement for this total number of facilities i.e. between ~~5~~ 4 and ~~18~~ 19 would be in the order of between 16~~20~~ha. and 28.5~~27~~ha. dependent upon size and type of facility. (Qu 13)

4.4 Restricting landfill capacity supply to that required to deal with the residue left after targets for recycling, composting and recovery are met, combined with other regulatory and fiscal tools such as landfill tax and LATS (Landfill Allowance Trading Scheme), should have the effect of driving waste management up the waste hierarchy. The minimum requirement for new landfill capacity of non inert waste, taking into account existing permitted non inert landfill capacity, is 387,000 tonnes per annum by ~~2009~~/2010,

300,000 tonnes per annum by ~~2014/~~2015 and 478,000 tonnes per annum by ~~2019/~~2020. ~~At least one additional non inert landfill site will be required by 2014 to meet this requirement and a further 1 or 2 would be needed depending on the amount of~~ Assuming no energy/value recovery capacity ~~that is actually~~ is developed in the WDF Period, with the exception of that required for municipal landfill diversion, and only minimum recycling/composting rates are reached, by 2010 a further two landfill sites may be required and another additional one by 2015 when the assumed capacity will fall to 460,000tpa. (Qus 15 & 16)

Table 4.4: Indicative scale and number of facilities required for the landfilling of non-inert (municipal and C&I) waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	1,087,000	700,000	-387,000	2 of 200,000
2015	1,000,000	860,000[1]	-140,000	1 of 200,000
2020	938,000	1,060,000[2]	(122,000)	0

[1] Assumes 400,000 tonnes of capacity added in response to the 2010 requirement.

[2] Assumes 200,000 tonnes of capacity added in response to the 2015 requirement.

4.5 For C&D waste there is a requirement to provide additional recycling capacity of around 570,000 tonnes (572,850) by 2010 and a further 60,000 by 2015 to reach that required ~~633,000 tonnes~~ by 2020, as shown in Table 4.5. This assumes disposal capacity requirements are met by inert waste landfills and that 20% of the waste going into non-inert waste landfills is inert. This could require up to 42 facilities by 2020 taking ~~Depending on their size this could require between 13 and 42 new C&D recycling facilities~~ by ~~the end of the framework period. The~~ total ~~land requirement to enable this range of facilities to be developed would be~~ between 52 ha. and 105 ha. (Qus 15 & 17)

Table 4.5: Indicative scale and number of facilities required for the recycling of construction & demolition waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	1,165,650	592,800	-572,850	12 of 50,000[1]
2015	1,225,500	1,192,800[2]	-32,700	1 of 50,000[3]
2020	1,225,500	1,242,800[4]	(17,300)	0

[1] Or 39 sites of 15,000 tonnes. Sites of 50,000 tonnes require 4 hectares and sites of 15,000 tonnes 2.5 hectares.
[2] Assumes 600,000 tonnes of capacity added in response to the 2010 requirement.
[3] Or 3 sites of 15,000 tonnes.
[4] Assumes 50,000 tonnes of capacity added in response to the 2015 requirement.

Assuming this additional recycling capacity is achieved there would still be a need to reuse or landfill 934,467 tonnes of

inert waste per annum by ~~2009/~~2010, rising to 995,267 tonnes per annum up to ~~2019/~~2020. Existing permitted inert landfill capacity is about 559,000 tonnes in 2010 reducing to only 115,000 tonnes at the end of the Framework Period. A proportion of inert landfill capacity is provided at non inert landfill sites and reuse of residual inert waste (i.e. that remaining after recycling) occurs as a result of ad hoc opportunities for landscaping, engineering and restoration schemes. However, depending on the additional C&D waste recycling capacity that comes forward there is an expected need for additional new inert landfill sites to be provided in the WDF period.

Table 4.6: Indicative scale and number of facilities required for the landfilling of inert (construction & demolition) waste.

Year	Gross Requirement (tonnes)	Capacity (tonnes)	Shortfall/Surplus (tonnes)	Number of additional facilities needed
2010	934,467	558,989	-375,478	2 of 150,000
2015	995,267	655,000[1]	-340,267	2 of 150,000
2020	995,267	865,000[2]	-130,267	1 of 150,000

[1] Assumes 300,000 tonnes of capacity added in response to the 2010 requirement and 100,000 tonnes of inert waste goes into new non-inert landfills (i.e. 20% of that which goes into non-inert landfills is inert, so, if 200,000tpa of non-inert waste is deposited, 50,000tpa of inert waste must also.).
[2] Assumes 300,000 tonnes of capacity added in response to the 2015 requirement and 50,000 tonnes of inert waste goes into non-inert landfills (explanation above).

Assuming a typical inert landfill size of around 150,000tpa this would equate to requiring 2 new landfills by 2010, a further 2 by 2015 and an additional 1 at 2020, i.e. a total of five by 2020, as shown in Table 4.6 above. (Qu 18)

4.6 No specific levels of management have been identified in the RWS for hazardous waste in the framework area although the RSS apportionments for C&I waste do include hazardous waste. ~~However,~~ It is stated in the RWS that the region is a net importer of this waste and appears to have sufficient capacity to manage regional increases to 2021. In the framework area 28,344 tonnes of hazardous waste were managed in 2003. Though no specific need for further hazardous waste facilities has been identified, they are not to be precluded from the WDF area. Indeed, by securing sufficient provision for C&I waste in the framework area this ensures this waste stream is provided for. Any applications for such will be determined on their merits against Policies CS1, CS5 and CS6 for recycling and landfill diversion or Policy CS7 for non-inert landfill and other relevant environmental policies within the WDF. (Qu 21)

4.7 The required capacity for managing waste up to 2020 has been calculated from targets and apportionments set in the East Midlands Regional Spatial Strategy (RSS), Regional Waste Strategy (RWS) and the Leicestershire Municipal

Waste Management Strategy (LMWMS) and sufficient land will be identified and proposals encouraged, to provide for waste reuse, recycling, and composting facilities to meet the targets as set out in these documents.

15. Throughout paragraphs 4.2 and 4.5 indicative sizes for recycling, composting and recovery facilities are taken and referenced from an ODPM publication. Where possible, a range of facility sizes has been provided to undertake the same waste management function. *These facility sizes are indicative and those published in Table 4.1 could be a greater size. The Councils have used mid point figures as a guide, providing an indicative, rather than a detailed, forecast of land requirement. (Qu 12)*

Landfilling of Inert Waste

16. Related questions on the Landfilling of Inert Waste Section in the Issues and Matters for Discussion document, Waste – New Waste Management Capacity prepared by the Inspector are as follows:

    20. Should permission for inert waste landfill sites be granted where the prime consideration is the restoration of mineral extraction sites? To what extent should cross-boundary movements (for example to facilitate restoration projects in the Trent Valley) be a consideration? [DCC]

17. *In determining a planning application for mineral extraction a number of considerations will need to be taken into account including the appropriate afteruse and the means of reclamation to that afteruse. The decision would be guided by policies in the Minerals Development Framework (including DC20). If reclamation was being proposed using imported inert waste then Policy CS8 of the Waste Core Strategy would also be relevant. Assuming that there would be reclamation benefits in importing waste then Policy CS8 would be met in respect of part (ii) but the other criteria would also need to be met. Where inert waste landfill is part of a mineral extraction proposal then Minerals Development Framework policies would have to be taken into account along with Waste Core Strategy Policy CS8. Policy CS8 enables cross boundary movements to be taken into account in respect of inert waste landfill sites. Part (iii) of CS8 requires potential delays to the restoration of other existing waste disposal sites (including those outside the framework area) to be taken into account. It should be noted that the waste requirements of existing mineral extraction sites in the Trent Valley (which have permission for importation of inert waste to achieve final restoration) would need to be taken into account in the determination of any new inert waste landfill proposal through part (iii) of CS8.* (Qu 20)

Non-Nuclear Industry Low Level Waste

18. Related questions on the Hazardous and Non-Nuclear Waste Section in the Issues and Matters for Discussion document, Waste – New Waste Management Capacity prepared by the Inspector are as follows:

    22. Should the strategy for managing non-nuclear industrial waste be included in the DPD? (Para 4.57)

19. The strategy referred to in paragraph 4.57 refers to a strategy being prepared by DEFRA for managing non-nuclear industry low level waste. DEFRA's work on the strategy includes commissioning research to establish the scale, nature and geographic distribution of non-nuclear industry low level waste arisings and management. Consultation on the draft is expected in February 2009. *Inclusion of a policy on low level non-nuclear waste in the DPD would be premature. Proposals for the management of this type of waste would be determined on their own merits against environmental and locational policies and taking into account the strategy when it emerges.* (Qu 22)