

NEED, ALTERNATIVES AND SUSTAINABILITY 5

5.0 NEED, ALTERNATIVES AND SUSTAINABILITY

Introduction

5.1 Need, alternatives and, for waste management developments, the most sustainable environmental option¹, are all material considerations which need to be considered together in assessing the acceptability of the proposed development, as set out in this planning application accompanying this ES. All three issues have been carefully taken into account in the development of these proposals and in the compilation of this ES.

5.2 Paragraph 1.54 of Annex 1 to PPS23 states:

“Applicants do not normally have to prove the need for their proposed development ... The assessment of need and of sustainability issues should take into account a comprehensive assessment of social, environmental and economic factors. It should be recognised that the need for a development in a particular location can outweigh negative impacts that would, in other locations, warrant refusing planning permission”.

5.3 In addition, Paragraph 40 of MPG1 states that:

“Applicants do not usually have to prove the need for a proposed development or discuss the merits of alternative sites, except where an Environmental Statement is required, although need may be a consideration where material planning objections are not outweighed by other planning benefits”.

5.4 The requirement to consider alternatives stems primarily from the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Schedule 4 of the Regulations identifies the information for inclusion in Environmental Statements. Parts 1 (2) and 2 (4) include;

“An outline of the main alternatives studied and an indication of the main reasons for his choice, taking into account the environmental effects”. Paragraph 83 of Circular 2/99 which accompanies the Regulations notes that “Although the Directive and the Regulations do not expressly require the developer to study alternatives, the nature of certain developments and their location may make the consideration of alternatives a material consideration.....”

5.5 Again, Paragraph 1.54 of Annex 1 to PPS23 provides that *“Applicants do not normally have to... discuss the merits of alternative sites. However, the nature*

¹ Recent planning guidance (PPS 10) sets out to subsume Best Practicable Environmental Option (BPEO) into Strategic Environmental Assessment (SEA) and the broader Sustainability Appraisal (SA). It should be noted however that until a full SA and SEA has been undertaken on all relevant plans and policies BPEO effectively remains extant.

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of polluting or potentially polluting developments and national or regional need for them, or the location of a proposal in an environmentally-designated or sensitive area may make the availability, or lack of availability, of suitable alternative sites material to the planning decision”.

- 5.6 The law offers guidance on the issue of alternative sites, with the main guidance set out by Simon Brown J. in *Trusthouse Forte Hotels Ltd v. Secretary of State for the Environment* (1986) 53P. & C. R. 293 (the THF case). Where a proposed development is bound to have significant adverse environmental effects and where a major argument for the development is that the need for the development outweighs those disadvantages, then it may well be relevant to consider whether there is a more appropriate site. Simon Brown J. suggested in the THF case that this may be the case for the development of “airports, coalmining, petrochemical plants, nuclear power stations, and gypsy encampments; but not normally dwelling houses, offices or superstores”. Moreover, in *R v North Warwickshire Borough Council* (2001) EWCA Civ 315 Laws L. J. concluded that consideration of alternative sites was only relevant to a planning application in exceptional circumstances. Such circumstances would particularly arise where the proposed development, though desirable in itself, involved such conspicuous adverse effects that the possibility of an alternative site lacking such drawbacks necessarily itself became, in the mind of a reasonable Local Planning Authority, a relevant planning consideration. Whilst not falling within the categories quoted in the case, a new non-hazardous landfill site located within the Green Belt could be seen as being comparable.
- 5.7 Consequently, whilst a detailed study of alternatives is not mandatory it is accepted that some consideration of alternatives is appropriate in a case like this where it can help establish that there are no reasonable less damaging alternatives and that the proposal is consistent with the most sustainable waste management solution for this given sub-region. In paragraphs 0 *et seq* of this section, an outline of the main alternatives is set out in terms of alternative technologies, alternative sites, and alternative patterns of development within the chosen site.
- 5.8 The BPEO concept has been used to inform the development of regional and local waste strategies. In this context, site specific applications needs to demonstrate a consistency with the BPEO. It should be noted that recent planning guidance² supersedes the Best Practicable Environmental Option (BPEO) approach into Strategic Environmental Assessment (SEA) and the broader Sustainability Appraisal (SA). It should be noted however that until a full SA and SEA has been undertaken on all relevant plans and policies the BPEO for a given area effectively remains extant.
- 5.9 Although located within the administrative area of Nottinghamshire, the Bentinck site at its closest point is located approximately 1km from the Nottinghamshire/Derbyshire border (3.7km from the access point), and generally 5km to the east of the county border. Derbyshire settlements of

² Planning Policy Statement 10. Planning for Sustainable Waste Management .ODMP. July 2005.

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Alfreton, Heanor, Pinxton, Ripley, Somercotes and South Normanton lie within 8km of the site. In view of the guidance within PPS 10 whereby waste is to be managed at one of the nearest appropriate facilities³, consideration must be given to the movement of waste between Derbyshire and Nottinghamshire and the role that a landfill facility could play in the management of proximate waste arisings in Derbyshire.

- 5.10 This section assesses, therefore, the need for the proposed development, and is sub-divided into considerations of:
- the need for inert and non-hazardous waste landfill capacity within the sub-region (Nottinghamshire and Derbyshire);
 - alternatives; and
 - sustainability.

Need for Inert Landfill Capacity

- 5.11 The Adopted Waste Local Plan WLP, at Table 10.4, identifies a shortfall in void capacity for inert waste of around 95,000t per annum for the Greater Nottingham area at the end of the plan period (being the end of 2004). The 2003 Monitoring Report⁴ indicates that the depletion of void capacity during the intervening period has not been as great, and as a result, sites have not closed as expected.
- 5.12 In the Mansfield/Ashfield area, the WLP did not identify a shortfall at the end of the Plan period. In this area inert wastes have been deposited at three sites: Berry Hill Quarry (Mansfield), Vale Road (Mansfield Woodhouse) and Sutton Quarry (Ashfield). The total quantity deposited in 1999/00 was 277,700t. The Berry Hill and Sutton Quarry sites have now closed, leaving Vale Road to take up the shortfall. The 2003 Monitoring Report recognises that the situation at Vale Road will need to be reviewed in the emerging WLP.
- 5.13 With the exception of Lords Wood Quarry (Bassetlaw), all inert disposal sites are anticipated to close within 6 years (referring to Table 2 in Appendix 2 of the 2003 Report), be it that some sites may not have been filled to approved levels by that time⁵.
- 5.14 The need for the disposal of inert wastes within the former Colliery Tip at Bentinck has been clearly identified in the WLP, which has been rigorously tested through the Public Inquiry into the Plan. It has been stated that the Tip is incapable of being satisfactorily reclaimed using indigenous material, largely due to geotechnical considerations. Accordingly, the principle of importing inert waste material has been accepted in policy terms, and thus there is not a requirement to demonstrate an overriding need for the proposals to tip inert wastes. In this respect, it is important to bear in mind

³ PPS10, paragraph 3.

⁴ Nottinghamshire and Nottingham Waste Local Plan Monitoring Report 2000-2003. September 2004.

⁵ Paragraphs 5.41 to 5.43 of the Nottinghamshire and Nottingham Waste Local Plan Monitoring Report 2000-2003. September 2004.

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that the materials are being imported as part of a reclamation scheme, and not as part of a landfill scheme.

- 5.15 Paragraph 5.45 of the 2003 Monitoring Report restates the Plan's policies for new landfill facilities, stating that proposals should be restricted to former mineral workings and other derelict sites where there is a proven need for waste disposal and where landfill can achieve long term benefits.

Need for Non-Hazardous Landfill Capacity

- 5.16 In order to establish that there is a need for the proposed landfill site, consideration is given to whether:
- there is a shortfall of this type of facility within the local area;
 - wherever possible, the application accords with the local Development Plan; and
 - the proposal is consistent with the most sustainable option.
- 5.17 This section provides evidence that the proposed development of the application site is in accordance with the above, and hence there is a need for the site within its proposed timescale of operation.

Current Situation within the Sub-region

- 5.18 **For Nottinghamshire and City:** During 2002/3, Nottinghamshire produced more than 560,000 tonnes of municipal solid waste (MSW)⁶. Of this amount, 14% is currently recycled, or composted, with between 350,000 tonnes and 360,000 tonnes disposed of in landfill sites and 120,000 to 150,000 tonnes incinerated. For commercial and industrial waste streams, the 2003 Monitoring Report does not provide detailed information. The most recent survey estimates⁷ for the East Midlands indicates that Nottinghamshire produced 2.6Mt of industrial waste (over 2Mt being classed as "*mineral wastes*") and 568,000t of commercial waste in 2002/03.
- 5.19 The latest monitoring report⁶ published by Nottinghamshire County Council lists ten landfill sites within the County (see Table 5/1). Seven of these sites are capable of accepting non-hazardous waste (Rufford does not currently have a PPC permit, and Burntstump and Barnstone have closed permanently). A further site (Sutton) is anticipated to close during 2007, with Bilsthorpe likely to close by 2009. Carlton Forest landfill site is currently mothballed (due to its proximity to Daneshill landfill site), leaving three sites to manage all of Nottinghamshire's waste. Staple Landfill is located near to Newark, and thus serves the east of the County. Daneshill is located near to Retford, and thus serves the north of the County. Finally, Dorket Head is located just to the north of the City of Nottingham and whilst having a sizable void and planning permission up to 2014, the landfill is constrained by the

⁶ Nottinghamshire Waste Local Plan Monitoring Report 2000-2003. September 2004. This figure includes Nottingham City

⁷ Environment Agency Commercial and Industrial Survey 2002/03

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ongoing rate of extraction of clay, meaning that the rate of importation can not be increased.

**Table 5/1
Non-Hazardous Landfill Sites within Nottinghamshire**

	Capacity (m ³) as at 31/3/00	Input (tonnes) 2000/2001	Input (tonnes) 2001/2002	New Capacity since 2000 (m ³)	Capacity (m ³) as at 31/3/02 ¹	Permission Expires	Estimated Closure ²
Daneshill	2,600,000	126,620	107,511		2,365,869	2048	2024
Carlton Forest Quarry	1,000,000	86,194	79,744		834,062	2015	2013
Fiskerton	170,000	0	0		170,000	-	-
Bilsthorpe	600,000	66,553	80,353	250,000	703,094	2013	2012
Rufford	600,000	0	0		600,000	2009	2009
Staple Quarry	2,000,000	52,169	54,365		1,893,466	2024	2024
Sutton Landfill	1,200,000	234,454	221,582		743,964	-	2005
Burntstump	500,000	185,094	256,743		58,163	Closed '03	-
Dorket Head Quarry	2,000,000	184,021	111,899		1,704,080	-	2014
Barnstone	125,000	73,041	125,569	150,000	76,390	-	2004
Totals	10,795,000	1,008,146	1,037,766	400,000	9,149,088		

Notes

- 1 Estimated capacity is based on public register information on site inputs which has been deducted from published capacity figures for 2000 in the adopted Waste Local Plan. The estimates of site capacity are therefore an extrapolation of existing data held by NCC and are based on an assumption of 1 tonne = 1m³
- 2 Estimated closure is based on average input 2000/01 – 2001/02 and relates to expiry of planning permission or completion of site – whichever comes sooner

Source: Nottinghamshire and Nottingham Waste Local Plan – Monitoring Report 2000-2003

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- 5.20 Table 5/1 provides details of the landfill sites in Nottinghamshire, based on information contained in the Monitoring Report, whilst Table 5/2 provides an up to date assessment of void capacity within Nottinghamshire. From these tables, it can be seen that the volume of permitted void in the county has fallen from nearly 9.1 Mm³ to 5.6 Mm³ in just over four years which is consistent with the filling rate of just under 1 million tonnes per annum (slightly lower than that observed in the period 2000 to 2002).

**Table 5/2
Non-Hazardous Landfill Sites within Nottinghamshire (2006)**

	Capacity (m ³) as at 31/06/06 ¹	Permission Expires	Estimated Closure
Daneshill	1,026,700	October 2046	September 2018
Carlton Forest	910,000	c. 2015	--- ¹
Bilsthorpe	99,683	November 2013	July 2008
Staple Quarry	2,464,871	October 2024	January 2021
Sutton Landfill	172,724	none	December 2007
Dorket Head	1,009,780	February 2042	April 2015
Totals	5,663,758		

Notes

- 1 Capacity figures provided by WRG
2 Site currently mothballed

- 5.21 **For Derbyshire and City:** MSW arisings in 2002/03 amounted to around 515,000 tonnes, of which nearly 23% is currently recycled, or composted, with the remaining 77% (or nearly 400,000 tonnes) sent to landfill. Estimates for commercial and industrial waste for 2002/03 are 1.1Mt of industrial and 0.5Mt of commercial wastes.
- 5.22 Information on non-hazardous landfill sites within Derbyshire suitable to accept MSW, industrial and commercial waste streams is not as detailed as that for Nottinghamshire. The Derby and Derbyshire Waste Local Plan⁸ at Annex D lists 28 sites. However, these include a number of “closed gate” facilities which are operated by industrial concerns purely for their own wastes. From the Derbyshire Municipal Waste Strategy⁹ it is understood that at the present time there are only two open gate (i.e. sites generally available to the market) landfill sites accepting MSW at Erin (near Bolsover) and Staveley, near Chesterfield.
- 5.23 The planning application for Erin landfill site (operated by Viridor Waste Management) stated that a void of 7.5 Mm³ would be filled over a period of 12 years, commencing at the end of 1998. However, it is understood that landfilling commenced later than 1998 and, in the early years, that the rate of waste inputs were lower than originally predicted leaving a substantial remaining void which is assessed as providing capacity for around 9.4Mm³

⁸ Derby and Derbyshire Waste Local Plan. March 2005. Derby City Council and Derbyshire County Council

⁹ “Looking After Waste”. Strategy Document. Draft for Public Consultation. October 2005

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of waste based on information submitted to the Environment Agency as part of a the PPC permit application (2003) .

- 5.24 The Staveley landfill site (Derbyshire Waste Limited) was due to close in November 2005. However planning permission has recently been granted to extend the life of the site until November 2007. The planned rate of input into the Staveley site is 200,000 tonnes per annum indicating that the remaining capacity at the start of 2006 was in the order of 0.4Mt. Both the Staveley and the Erin sites are located in the north-east area of Derbyshire.

Waste Management Responsibilities within the Sub-region

- 5.25 Nottinghamshire and Derbyshire County Councils and the City Councils of Nottingham and Derby, as planning authorities within the sub-region, are responsible for all land-use planning matters associated with waste. These planning authorities have specific responsibility for strategic and local waste land-use planning policy, including the preparation of strategic waste land-use policy within development plan documents¹⁰. These authorities are also Waste Disposal Authorities, and responsible for making arrangements for the disposal of MSW and as such have developed MSW strategies the status and detail of which will be summarised later in this section.
- 5.26 The East Midlands Regional Assembly (EMRA) is required by the Secretary of State to prepare a waste strategy for the region. The final version of the Regional Waste Strategy (RWS) was published in the January 2006¹¹. An earlier version of the RWS was included in the review of the Regional Spatial Strategy (RSS8), which has undergone public examination¹².
- 5.27 EMRA is assisted by the East Midlands Regional Technical Advisory Body for Waste (EMRTAB). EMRTAB's role is to inform and advise the EMRA and Waste Planning Authorities within the East Midlands Region on regional waste management issues. This includes the collation and interpretation of relevant information, and provision of advice on options and strategies for dealing with the waste that requires management within the region. A technical assessment of waste within the region was prepared in 2002 and supported the development of the regional waste strategy and subsequent RSS8 planning guidance. Forecasts for existing capacity, future forecasted need and capacity shortfall are set out within the Regional Waste Strategy. Figure 5/1, below, illustrates treatment and disposal capacity gaps estimated therein for each East Midlands county.

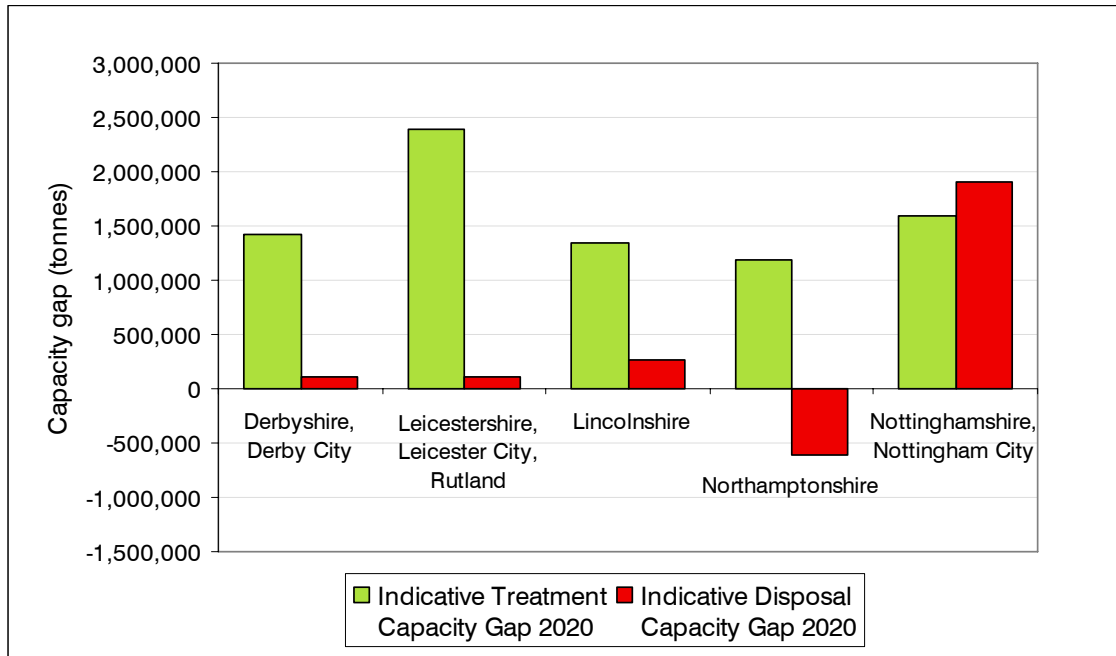
¹⁰ The Planning and Compulsory Purchase Act 2004 introduced a new planning framework which includes waste local plans being superseded with equivalent development plan documents. Transitional arrangements are in place for those authorities with all plans at an advanced stage of development.

¹¹ East Midlands Regional Waste Strategy, EMRA, January 2006.

¹² Regional Spatial Strategy for the East Midlands, March 2005. Government Office for the East Midlands. (An amended version is to be released on 28th September 2006.)

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Figure 5/1
2020 Treatment and Disposal Capacity Gaps Estimated in the
East Midlands Regional Waste Strategy



5.28 A review of the relevant waste strategic framework, including the waste local plan, is given in the sections below.

Nottinghamshire Waste Local Plan

5.29 Paragraphs 4.87 *et seq* in the previous section have considered the implications of the adopted WLP which covers the period from 1st January 1995 to 31st December 2004.

5.30 In September 2004 Nottinghamshire County Council published the first monitoring report of the WLP¹. This report looks at changes in legislation, policy guidance and waste management technologies since the Plan was prepared and examines the performance of individual policies to date. The report covers the four year period from January 2000 to December 2003.

5.31 On page 3 the report summarises the situation with regard to shortfalls in waste disposal capacity as

“... Monitoring of the Plan and recent survey data has shown that these shortfalls are beginning to emerge and that the County faces significant shortfalls in these areas if the Bentinck scheme cannot be implemented. No alternative new sites have come forward and waste is being diverted to other existing, and in some cases, more remote sites. This will reduce their lifespan and increase the need to provide alternative local sites”

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- 5.32 The WLP has recognised the relevant European and UK legislation and the need to fulfil the requirements of the EU Landfill Directive and the National Waste Strategy (Waste Strategy 2000).
- 5.33 The WLP does not identify a long-term cumulative requirement for landfill capacity; rather it identifies the annual shortfall in capacity from around 2003 in the Greater Nottingham area, and from around 2007 in the Mansfield/Ashfield area following the closure of Sutton Landfill site. Table 5/4, below, summarises the anticipated shortfalls for two waste streams (i) household, commercial and industrial, and (ii) construction and demolition waste, and for Best and Worst Case Scenarios. The Best Case assumes that a third line at the Eastcroft incinerator comes on stream by c. 2000 and reduces 100,000 tonnes of waste to 30,000 tonnes of ash per annum; and that waste arisings reduce by 10%. The Worst Case assumes that the third line at Eastcroft does not become operative.
- 5.34 An application for the third line at Eastcroft was submitted to Nottinghamshire County Council in June 2005, some five years after the anticipated date in the “Best Case” scenario and outside of the Plan period. However, this application was refused on 21 September 2006.
- 5.35 It has also been reported in the 2004 WLP Monitoring Review (refer to paragraph 4.97 *et seq* in the previous Section) that the amount of waste deposited within the County’s landfill sites has increased. The projected shortfall in void capacity within the County is therefore likely to be closer to the figures presented for the Worst Case scenario.

**Table 5/5
Waste Local Plan Forecast Shortfalls in Landfill Capacity
in parts of Nottinghamshire (/000 tonnes per annum)**

Waste Stream	Greater Nottingham		Ashfield/Mansfield		Total	
	Worst Case	Best Case	Worst Case	Best Case	Worst Case	Best Case
Household, Commercial & Industrial	220	128	185	167	405	295
Construction/Demolition	95	85	Nil	Nil	95	85
Totals	315	213	185	167	500	380

- 5.36 The WLP, therefore, anticipates in the worst case a shortfall of some 405,000 tonnes of non-inert capacity and 95,000 tonnes of inert capacity by 2005/6. Bentinck is the only site allocated in the WLP to meet this shortfall. In the WLP analysis there is, therefore, a clear quantitative need for the Bentinck site.

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Derby and Derbyshire Waste Local Plan

- 5.37 The Derby and Derbyshire Waste Local Plan was adopted in March 2005 and covers the period up to 2015.
- 5.38 Chapter 5 of the WLP discusses the landfill capacity within Derbyshire and its sub areas (North East, South East and West). It recognises that for the foreseeable future, there will be a need to dispose of waste at landfill sites. Moreover, based on the analysis provided in Appendix B to the WLP, Derby and Derbyshire is likely to dispose to land a larger volume of waste than the existing licensed void space in the Plan area can accept. In view of this, the WLP considers exporting waste to landfill sites close to the Plan area within neighbouring administrative areas, including Nottinghamshire.
- 5.39 The analysis in the WLP also shows that there will be a significant imbalance between the potential quantity of waste requiring landfilling and amount of available void space in the South East sub area throughout the Plan period. Overall, the County as a whole has a projected shortfall in landfill capacity by 2010/11 with a deficit of around 3.3Mm³ by 2015. Paragraphs 5.14 to 5.20 describe the situation within the South East sub region. In particular, it notes that:
- it is the largest sub area in terms of population, taking in Derby City, Amber Valley, Erewash and South Derbyshire, and is the largest producer of waste;
 - most of the waste from Amber Valley, Erewash and Derby City (via a transfer station at Raynesway) currently goes to Sutton in Ashfield, Nottinghamshire. South Derbyshire's waste is taken to Lount in Leicestershire, and is expected to be taken to the New Albion landfill site once it opens (again in Leicestershire); and
 - there is scope to dispose of non-hazardous waste at sites just outside of the plan area, specifically mentioning the allocated site at Bentinck.
- 5.40 It should be emphasised that the only currently available non-hazardous landfill capacity in Derbyshire is available in the north-east sub area, and there is no capacity in the other two areas. To overcome this, Derbyshire has suggested that sites are available, or may become available, in adjoining Counties which may satisfy the needs within Derbyshire.

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Regional Spatial Strategy & Regional Waste Strategy

- 5.41 The Regional Spatial Strategy for the East Midlands dated March 2005 identifies the need to provide landfill capacity, across the region, for at least 4.9Mt of waste per annum by 2015, of which nearly 3.0Mt would comprises non-inert waste¹³. This assessment is based upon earlier options assessment work undertaken by the EMRA.
- 5.42 Table 5/6 lists growth assumptions employed in the EMRA regional waste strategy for municipal, commercial and industrial waste.

Table 5/6
Annual Waste Growth Rates Employed in the
East Midlands Regional Waste Strategy

Period	Annual Growth Rate		
	MSW	Commercial	Industrial
2002-06	3.6%	2%	-1%
2007-15	1.7%	1%	-1%
2016-20	0%	0%	-1%

- 5.43 An options assessment report is available on the East Midlands Regional Assembly website¹⁴. This report assessed all controlled waste streams including commercial, industrial, construction and municipal wastes and characterised these wastes into essentially two waste types, inert and non inert wastes. Using the options assessment work, EMRA adopted Option 2¹⁵ as the basis of regional planning guidance.
- 5.44 With respect to MSW, the options assessment report identified that capacity for disposal of approximately 304,000 and 249,000 tonnes per annum (tpa) in Nottinghamshire and Derbyshire respectively was required under Option 2 in 2020. The options assessment report suggests that MSW annual throughput is likely to be higher in earlier years (pending the introduction of treatment and recovery facilities) therefore reinforcing the need for continued landfill capacity.
- 5.45 With respect to non-inert commercial and industrial wastes, the report identified that capacity for disposal of approximately 399,000 and 434,000 tpa in Nottinghamshire and Derbyshire respectively was required in 2020.
- 5.46 The report also suggests that non inert C&I waste landfill input is likely to be higher in earlier years therefore reinforcing the need for continued landfill capacity. The combined non inert landfill requirement for both MSW and C&I

¹³ Regional Spatial Strategy for the East Midlands, March 2005. Government Office for the East Midlands. (An amended version is to be released on 28th September 2006.)

¹⁴ <http://www.emra.gov.uk>; Available on 20 August, 2004.

¹⁵ This was identifiable from RPG 8, Appendix 5, which pre-dates RSS8.

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wastes is therefore estimated to be approximately 703,000tpa in Nottinghamshire and 686,000tpa in Derbyshire for Option 2 in 2020.

- 5.47 Estimates of the cumulative capacity requirements non inert landfill void can be made using the figures presented above. Assuming that a cumulative non inert landfill capacity of around 1.4Mtpa (for both Nottinghamshire and Derbyshire) is required by 2020, the minimum cumulative landfill capacity required across these two counties between 2005 and 2020 would be at least between 21Mt. The provision of this minimum capacity is considered to represent a “recognised” need in the terms of Policy W10.1 of the Nottinghamshire WLP.
- 5.48 It is clear therefore that the regional strategy recognises a continued need for non-inert waste landfill capacity up to 2020 and requires waste planning authorities to make provision for the disposal of residual wastes.

Review of England’s Waste Strategy- February 2006

- 5.49 The recent consultation on the review of England’s waste strategy¹⁶ suggests that new aspirational targets for the recovery of MSW and C&I waste may be appropriate, as summarised in Table 5/7, below.

Table 5/7
Targets Suggested for MSW and C&I Waste in the
Consultation on the Review of England’s waste Strategy

Year	MSW Recovery Target	C&I Landfill Target
2010	53%	37%
2015	67%	36%
2020	75%	35%

- 5.50 Provision is already made in the East Midlands Regional Waste Strategy to meet the suggested 2006 waste strategy review MSW recovery target. However, C&I disposal in the RWS is set at a constant of 58%, and therefore is not as exacting as any of the strategy review’s proposed C&I landfill targets.

Updated Forecast of Landfill Void Capacity Requirement

- 5.51 A conservative projection of the ongoing landfill requirements in Nottinghamshire and Derbyshire has been made by SLR on behalf of WRG. Assessments of the future waste arisings and the amount of these wastes which would be treated, if all of the various mandatory or aspirational targets are met, including those which have been suggested in the February 2006 consultation on the review of Waste Strategy 2000, have been carried out.

¹⁶ Review of England’s Waste Strategy: A Consultation Document, DEFRA, February 2006.
<http://www.defra.gov.uk/corporate/consult/wastestratereview/index.htm>

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To enable such a conservative forecast to be completed, it was assumed that these targets will be met although there is no evidence to date that either the targets will be adopted or that the targets for C&I waste will be met in the absence of any regulatory drivers.

- 5.52 Using the growth rates in Table 5/6, MSW, commercial and industrial waste arisings in Nottinghamshire and Derbyshire may be projected forwards. Application of the potential targets offset out in Table 5/7 then allows calculation of total recovered and landfilled waste fractions in the two counties. In making these calculations, waste arising in the power and utilities sector has been excluded from the capacity requirements as it is understood that the majority of this waste is pulverised fuel ash which is disposed of in “closed gate” landfills and would be unlikely to be disposed of at the application site.
- 5.53 The impact of the requirements of Landfill Allowances Trading Scheme (LATS) have been taken into account in assessing the amount of biodegradable MSW that can be landfilled. In many years, the amount of MSW that can be landfilled is limited by the LATS allowance rather than by the most stringent recovery target in the consultation on the national waste strategy.
- 5.54 In making these assessments it has been assumed, again on a conservative basis, that none of the waste arising in the Utility and Power industrial sector is landfilled at open-gate landfills.
- 5.55 The findings of this up to date and conservative assessment of future landfill need capacity are set out in Tables 5/8 and 5/9.
- 5.56 The future waste arisings in each of the three categories of non-inert waste (i.e. municipal solid, commercial and industrial wastes) are set out in Table 5/8. The forecasted arisings have been assessed using recent base data and the growth (or reduction) factors set out in Table 5/7.
- 5.57 The data in Table 5/8 has then been used to assess the maximum amount of each waste type that can be landfilled in order to achieve relevant targets and, in the case of MSW, to avoid penalties that would be incurred under the LATS regime.
- 5.58 Table 5/9 and Figure 5/2 presents the results of this analysis as an assessment of the amounts of waste arising in Nottinghamshire that will require recycling and recovery and of the amounts of residual waste that can then be landfilled. Given that the first mandatory LATS target and the first aspirational target for reducing C&I waste to landfill in the waste strategy review are not until 2010, it has been assumed that there is a straight line decrease in the amount of MSW and C&I waste being landfilled from the current period until 2010. This is considered to be a further conservative assumption with regard to the amount of waste that will need to be accommodated at landfills during this period. These figures are shown underlined in the table.

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- 5.59 The analysis for Derbyshire is set out in Table 5/10 and Figure 5/3 using similar assumptions.
- 5.60 Finally, using the projected quantities of residual waste that would need to be disposed of within landfill sites, coupled with the permitted void remaining, Figures 5/4 and 5/5 illustrate the depletion of this void in Nottinghamshire and Derbyshire respectively.

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Table 5/8 Forecasts of Waste Arisings in Nottinghamshire and Derbyshire to 2020

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Growth	MSW	3.6%	3.6%	3.6%	3.6%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	0%	0%	0%	0%	0%
	Commercial	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%
	Industrial	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Notts	MSW (kt)		<u>618</u>	641	664	675	686	698	710	722	734	747	760	772	772	772	772	772	772
	Commercial (kt)	<u>568</u>	580	591	603	609	615	622	628	634	640	647	653	660	660	660	660	660	660
	Industrial (kt)	<u>680</u>	673	667	660	653	647	640	634	628	621	615	609	603	597	591	585	579	573
Derbyshire	MSW (kt)		<u>521</u>	540	560	569	579	589	599	609	619	630	640	651	651	651	651	651	651
	Commercial (kt)	<u>464</u>	473	482	492	497	502	507	512	517	522	527	533	538	538	538	538	538	538
	Industrial (kt)	<u>846</u>	838	830	821	813	805	797	789	781	773	765	758	750	743	735	728	721	713

Notes- Base year figures s are highlighted in bold, italics and underlined

Table 5/9 Forecasts of Waste Treatment and Disposal Capacity Requirements in Nottinghamshire to 2020

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
MSW	Total MSW (kt)	664	675	686	698	710	722	734	747	760	772	772	772	772	772	772
	MSW recovery target (%)	n/a	n/a	n/a	n/a	53%	56%	59%	61%	64%	67%	69%	70%	72%	73%	75%
	MSW landfill to meet recovery target (kt)	n/a	n/a	n/a	n/a	334	319	304	288	272	255	243	230	218	205	193
	Max MSW landfill meeting LATS (kt)	408	401	392	382	369	328	287	245	235	224	214	203	193	182	172
	Max allowed MSW landfill (kt) ²	<u>380</u>	<u>370</u>	<u>360</u>	<u>350</u>	334	319	287	245	235	224	214	203	193	182	172
C&I	Total C&I (kt)	1,263	1,263	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,263	1,257	1,251	1,245	1,239	1,233
	C&I landfill target (%)	n/a	n/a	n/a	n/a	37%	37%	37%	36%	36%	36%	36%	36%	35%	35%	35%
	Max allowed C&I landfill (kt) ³	<u>518</u>	<u>505</u>	<u>492</u>	<u>480</u>	467	464	462	459	457	455	450	445	441	436	432
Total	Total to landfill (kt)	898	875	852	830	801	783	748	705	692	679	664	649	634	618	603
	Total recovery (kt)	1,029	1,063	1,096	1,131	1,171	1,200	1,248	1,304	1,330	1,356	1,365	1,375	1,384	1,393	1,402
	Total waste (kt) exc Power/ Utilities	1,927	1,938	1,949	1,960	1,972	1,984	1,996	2,009	2,022	2,035	2,029	2,023	2,017	2,011	2,006

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Table 5/10 Forecasts of Waste Treatment and Disposal Capacity Requirements in Derbyshire to 2020

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
MSW	Total MSW (kt)	560	569	579	589	599	609	619	630	640	651	651	651	651	651	
	MSW recovery target (%)	n/a	n/a	n/a	n/a	53%	56%	59%	61%	64%	67%	69%	70%	72%	73%	75%
	MSW to landfill after recovery	n/a	n/a	n/a	n/a	281	269	256	243	229	215	205	194	184	173	163
	LATS allowance (kt)	n/a	n/a	n/a	n/a	202	179	157	134	129	123	117	111	106	100	94
	Max landfill meeting LATS (kt)	n/a	n/a	n/a	n/a	297	264	231	198	189	181	172	164	155	147	138
	Max allowed MSW landfill (kt) ²	<u>340</u>	<u>330</u>	<u>320</u>	<u>300</u>	281	264	231	198	189	181	172	164	155	147	138
C&I	Total C&I (kt)	1,313	1,310	1,307	1,304	1,301	1,298	1,295	1,293	1,291	1,288	1,281	1,273	1,266	1,259	1,252
	C&I landfill target (%)	n/a	n/a	n/a	n/a	37%	37%	37%	36%	36%	36%	36%	36%	35%	35%	35%
	Max allowed C&I landfill (kt) ³	<u>538</u>	<u>524</u>	<u>510</u>	<u>495</u>	481	478	474	471	467	464	459	453	448	443	438
Total	Total to landfill (kt)	878	854	830	795	763	742	705	668	656	645	631	617	604	590	576
	Total recovery (kt)	994	1,025	1,056	1,097	1,137	1,165	1,210	1,254	1,275	1,295	1,301	1,308	1,314	1,320	1,326
	Total waste (kt) exc Power/ Utilities	1,873	1,879	1,886	1,892	1,900	1,907	1,915	1,923	1,931	1,940	1,932	1,925	1,917	1,910	1,903

- Note 1 Underlined figures are estimated based on current situation and falling trend to 2010 target years
 2 Based on straight line decline from current disposal to landfill
 3 Based on decline from 58% recovery (assumed 42% landfill) at present to 37% target in 2010

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Figure 5/2: Forecasts of Waste Treatment and Disposal Capacity Requirements in Nottinghamshire to 2020

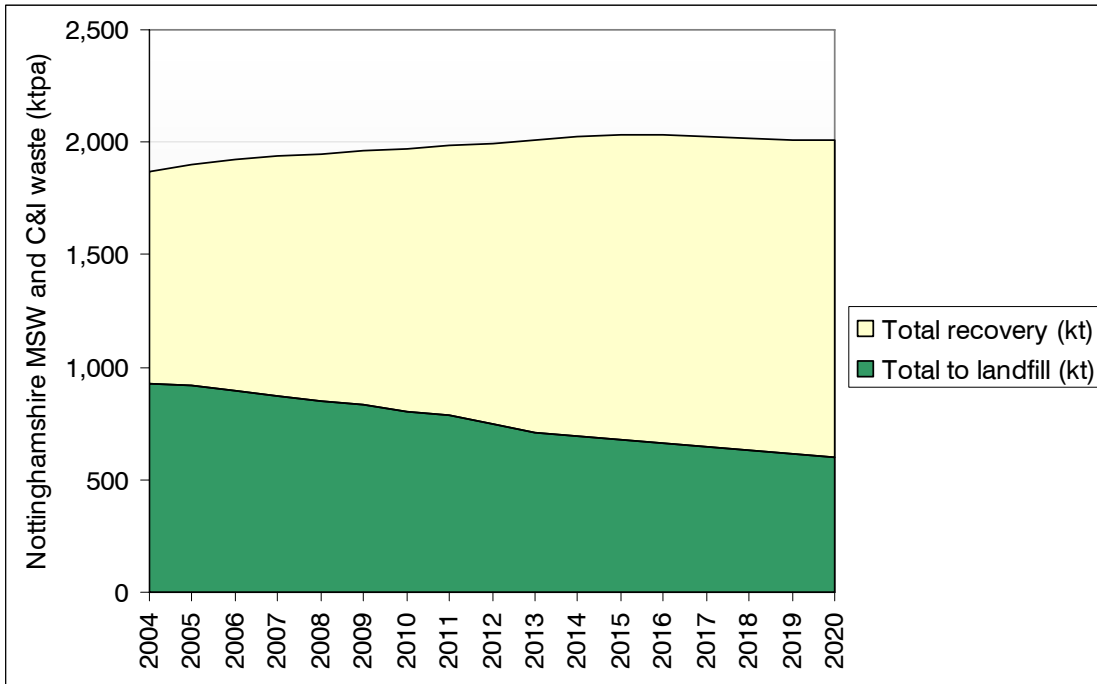
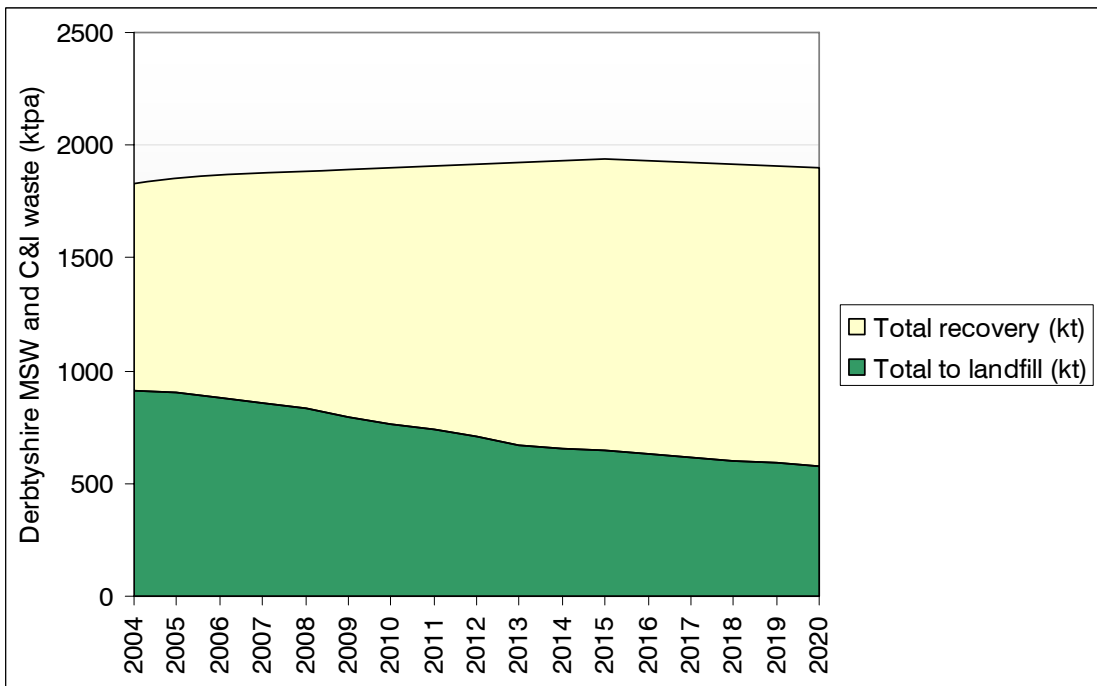


Figure 5/3: Forecasts of Waste Treatment and Disposal Capacity Requirements in Derbyshire to 2020



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Figure 5/4: Depletion of landfill Void within Nottinghamshire

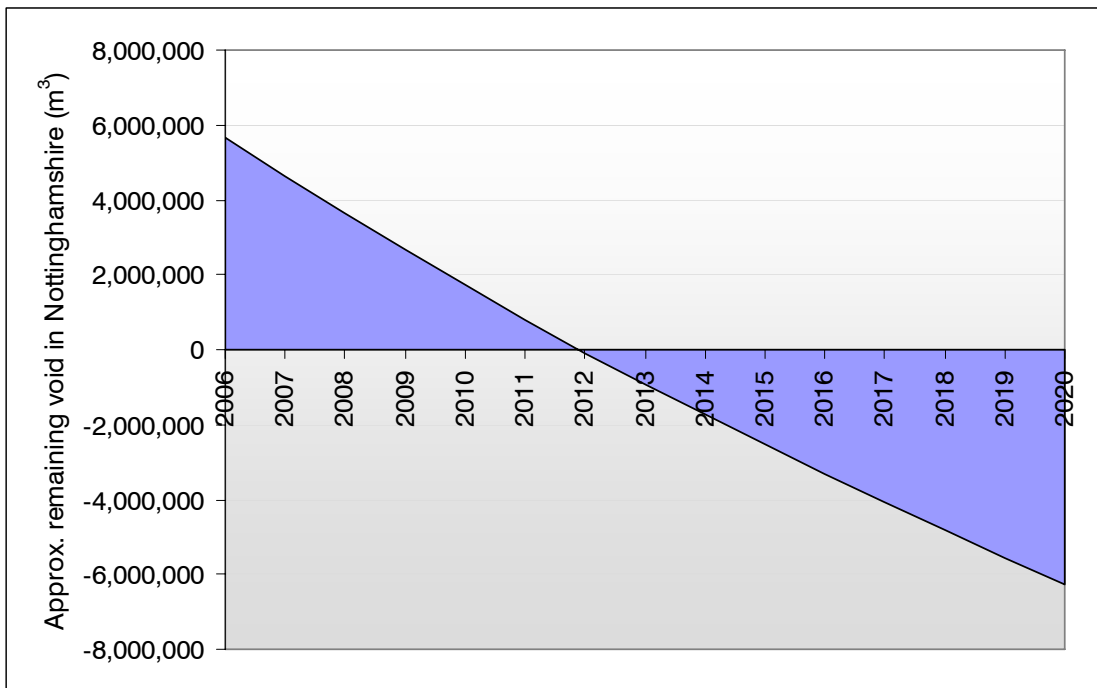
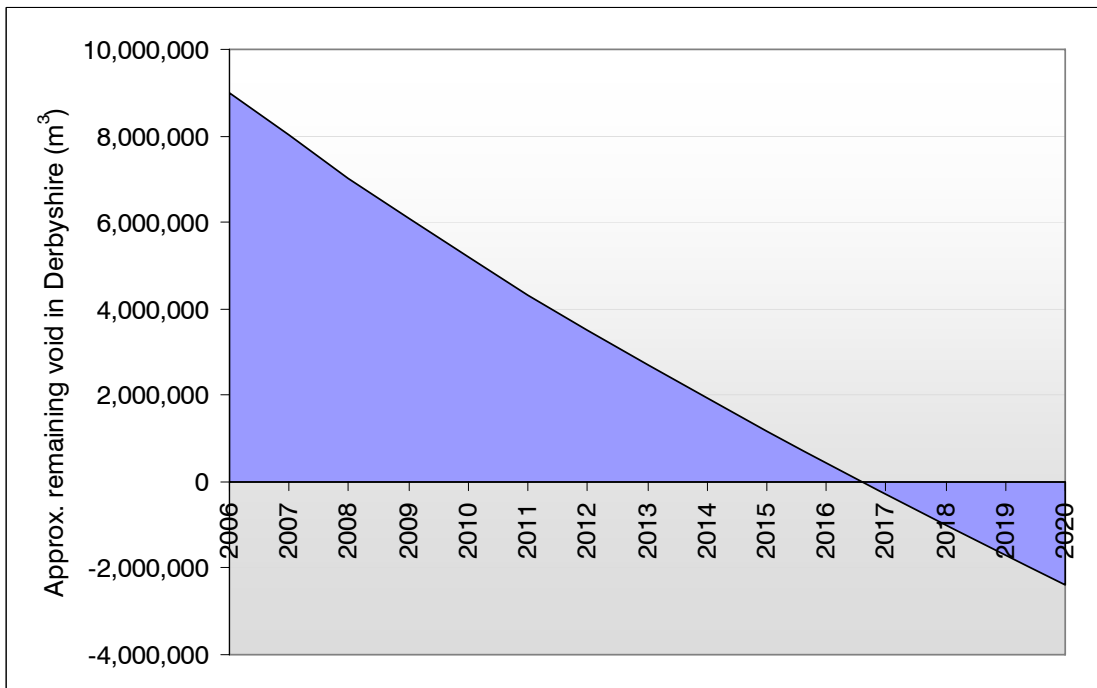


Figure 5/4: Depletion of landfill Void within Derbyshire



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Conclusions with Respect to Need

- 5.61 Using the forecasts in Tables 5/9 and 5/10 the conservative capacity requirements for landfill disposal of non-inert wastes (excluding all wastes from the Power and Utilities industrial sector) can be assessed.
- 5.62 In the period to 2006-2020 inclusive, the conservative landfill capacity requirement for non-inert wastes in Nottinghamshire is assessed as being just over 11 million tonnes (Mt).
- 5.63 Over the same 2006-2020 period the conservative capacity requirement for landfilling of non-inert wastes in Derbyshire is assessed as being 10.5 Mt.
- 5.64 These up to date and conservative assessments are in agreement with separate regional forecasts made by EMRA (see paragraph 5.46 above) to the effect that a total landfill capacity for non-inert wastes on 21 Mt would be required during the period to 2020.
- 5.65 The available non-inert waste landfill void space in Nottinghamshire has been assessed as being just over 6 Mt as at the start of 2006 (see paragraph 5.20) indicating a cumulative shortfall of about 5Mt over the period to 2020.
- 5.66 In Derbyshire, landfill capacity is contained within the two remaining landfill sites, with the vast majority being at a site located in the north east of the County (close to Junction 30 of the M1). As with Nottinghamshire, it is calculated that there would be a cumulative shortfall in void capacity over the period to 2020, be it that the shortfall would not be so great.
- 5.67 This conservative assessment has indicated, therefore, a shortfall of landfill void space capacity for 6.5 Mt of non-inert waste over the period to 2020 in Nottinghamshire and Derbyshire.
- 5.68 It is considered that this represents a clear need case for the release of additional void space at Bentinck which would be well located with respect to these local authority areas.

Consideration of Alternatives

- 5.69 Examination of alternatives to the current proposal can be considered at three levels set out in turn below:-
- Alternative waste management techniques or facilities to landfill
 - Alternative sites to Bentinck for landfill
 - Alternative designs or ways of developing the Bentinck site as a landfill

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Alternative Techniques or Facilities

- 5.70 Although landfilling is at the bottom of the Waste Hierarchy it is a fundamental element of any integrated waste management strategy, underpinning techniques further up the hierarchy such as recycling, recovery, composting etc. As has been set out in Section 4, landfill can represent an integral part of the most sustainable long term option for various waste streams. In considering the need for landfill capacity within Nottinghamshire, Derbyshire and the region at large it has been assumed that the other techniques of waste management further up the Hierarchy will have been fully deployed in accordance with the Government's targets. The landfill capacity so identified is not therefore in any way in conflict with, or an "alternative" proposal to the use of those higher level methodologies. It is effectively the irreducible minimum amount of landfill still required when all the "higher" technologies are running at their maximum practicable capacity. It is designed to cater solely for that part of the waste stream for which landfilling is the only practicable option. In this respect, the Adopted WLP has identified that the addition of a single landfill site at Bentinck will be required to manage residual waste streams.
- 5.71 Alternatives to this approach have been assessed in detail at national, regional and county levels through the production of the Waste Strategy 2000, Regional and Local Waste Management Strategies and the WLP, and the targets that have been set are considered by these bodies to represent the most appropriate out of a wide range of alternatives that have been considered. These documents all indicate that, even with significant additional capacity for recycling/recovery, additional landfill capacity will be required. It is therefore considered that detailed assessment of other waste management alternatives has already been made and need not be repeated in this document.
- 5.72 In relation to differing technologies for the design of landfill facilities, it should be noted that landfill design, construction and operation are highly regulated procedures which are controlled by the Environment Agency under a PPC permit. A permit will not be issued until the Environment Agency is fully satisfied that the landfill will be designed and operated in such a way as to minimise risk to the environment to acceptable levels, accepting that all human activities pose some risk to the environment.

Alternative Sites to Bentinck for Landfill

- 5.73 The Waste Local Plan process is the principal statutory framework within which decisions on the size, number and location of essential waste management developments are made. In the case of the Nottinghamshire and Nottingham WLP there was a substantial period of consultation during which a range of alternative and/or additional landfill sites to Bentinck Void were considered, initially by the County Council and subsequently by the Local Plan Inspector at a Public Inquiry lasting for three and a half months in

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1999. The Inspector's recommendation, subsequently adopted by the County and the City Councils (subject to minor amendments which are not relevant in this context) was that the Bentinck Void was the only site allocated to meet the identified shortfall in non-inert landfill capacity.

- 5.74 The WLP sets out at paragraphs 10.22 *et seq* the options considered by the County Council for meeting the shortfall in void capacity for inert and non-hazardous waste streams. This included using existing mineral workings (Gunthorpe and Bestwood No 1); future mineral voids (Gunthorpe); new opencast coal sites; and unreclaimed colliery tips. The 2003 Monitoring Report has reviewed this assessment of alternatives concluding that the findings of the WLP are still valid.
- 5.75 Whilst the WLP pre-dates PPS10, it is considered that the existing allocation at Bentinck is consistent with the locational policies set out in PPS10.
- 5.76 In the context of the plan-led system, and in the absence of any alternative sites coming forward, or any other material change in circumstance arising since the adoption of the WLP, it can be concluded that there is no alternative more appropriate than Bentinck Void to satisfy the acknowledged need for new non hazardous landfill capacity.

Alternative Development Proposals within Bentinck Void

- 5.77 Two alternative proposals for landfilling within the Bentinck Void have been considered in addition to the selected option set out in the current planning application. These can be summarised as:-
- the original 1997 landfill proposal generating a post settlement void capacity of 5.5 million cubic metres; and
 - no landfill within the void.
- 5.78 In addition, consideration has been given to the location of the landfill gas management infrastructure and, following a meeting with the Environment Agency, whether there any alternatives to the proposed culvert, including diverting the Cuttail Brook.
- 5.79 The original 1997 proposal exceeds the landfill capacity requirement identified in the quantitative assessment in the WLP and is confined entirely to the "footprint" of the allocated landfill area identified in the WLP. It therefore broadly meets the practical and planning requirements although it is significantly greater in volume than the Bowman-Planton concept scheme, which this application adopts. It also incorporates rather steep slopes on its north facing front adjoining the Bentinck Tip, which is not ideal in landscape terms. It is considered that some amendments to the original proposed 1997 landform would be necessary on landscape grounds.
- 5.80 The second option for the Void would be to undertake no infilling at all. This would represent the "do nothing" scenario, which is the baseline situation for consideration of the environmental effects of the present proposals. If no

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infilling were carried out, then the current landform would remain in perpetuity, imposing an impact upon the landscape character of the area, and degrading visual amenity. It would also frustrate the reclamation of the Tip: without the financial backing of the landfill, the necessary infrastructure, such as the access road, would not be developed. Like the second option, it would allow for the habitats of protected species to be preserved. However, if the Void were not to be infilled, then a considerable pressure would be placed on the Council to release further void capacity to meet the predicted shortfalls.

- 5.81 In relation to the landfill gas management infrastructure, consideration has been given to the location of the gas utilisation compound. As set out in Section 3, this would house up to four engines and two flares, and would have to operate for twenty four hours per day. The main impacts associated with its operation relate to the potential derogation of the air quality and the noise environment at the closest properties. As part of the EIA process, quantitative assessment has been undertaken to assess these potential impacts. Whilst the assessments demonstrated that the initial location for the compound (being adjacent to the weighbridge in a cutting) was acceptable in both noise and air quality terms, views expressed by local residents at a public exhibition indicated that consideration should be given to relocating the compound elsewhere within the site, further away from the closest properties. It was therefore decided to locate the compound adjacent to the compost maturation facility.
- 5.82 Finally, at a meeting between the applicant, SLR and the Environment Agency (EA), the EA suggested that alternatives to culverting should be explored, and in particular, whether the line of the Cuttail Brook could be diverted around the site, not only in the immediate vicinity of the Void, but looking further upstream to see if a new channel could be constructed. Through analysis of topography and determining stream catchment areas, it has been concluded that there are no feasible options to those put forward in the planning application. This is considered further in Section 7 of this ES.

Alternative Development Proposals within Bentinck Tip

- 5.83 Through the Bowman Planton report, consideration has been given to the options for reclaiming the Tip. This report puts forward an optimal scheme, seeking the integration of the Tip into the wider landscape with the minimal amount of fill. Other schemes would either require a greater amount of fill material, which would extend the timescale to achieve final reclamation of the Tip, or produce an incompatible landform with less fill material. As with the Void, there is the option of not importing any waste: again this would result in the retention of the current landform in perpetuity.

Assessment of Sustainability

Introduction

5.84 PPS 10 states that the overall objective of the Governments policy on waste is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. The Key Planning Objectives within PPS10 have been set out in the previous section and include delivering sustainable development through driving waste management up the waste hierarchy and securing the safe recovery or disposal of waste at one of the nearest appropriate installations.

5.85 Prior to the publication of PPS10¹⁷, Best Practical Environmental Option (BPEO), as set out in the Waste Strategy 2000 and PPG 10, was seen as a methodological tool for helping in the delivery of Government policy on waste management. By itself it has no legal standing. For example, the Waste Framework Directive does not include any reference to BPEO. Similarly, there is no obligation on Member States to prepare a national waste plan incorporating BPEO. At section 8.6 of the companion guide to PPS10 (page 89) it states that:

“the tenets that underlay BPEO would be delivered in spatial planning through plan-led strategies that drive waste management up the waste hierarchy. These strategies, at both the regional and local level, will be subject to SA and set within the community engagement that is central to the reformed planning system.

There is therefore no direct legal or national policy requirement for the application of BPEO policies in extant local plans. The approach to be taken should be that set out in The Planning System: General Principles i.e. a local planning authority must determine a planning application in accordance with the statutory development plan, unless material considerations indicate otherwise. Where there are other material considerations, the development plan should be the starting point, and other material considerations should be taken into account in reaching a decision. One such consideration will be whether the plan policies are relevant and up-to-date.”

5.86 At page 91 the companion guide states that in the absence of an up to date plan, the planning authority will need to ensure that they have sufficient information to test consistency with PPS10 (in which the Key Planning Objectives play a critical role). It then provides that where an application is supported by an Environmental Statement, then the information required should be available.

5.87 It does not, therefore, appear appropriate to undertake a full BPEO assessment for individual proposals included within a planning application, but to ensure that the proposals accord with the BPEO for the area.

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Nottinghamshire County Council has published a Draft BPEO assessment, as part of the PFI procurement process. To demonstrate that the proposals contained within this planning application would form part of the BPEO for the area, a qualitative assessment of BPEO is provided in the remainder of this section. This assessment has been carried out having regard to the following principal factors:

- regional and local policy and strategy guidance on waste management;
- waste hierarchy;
- proximity principle and self sufficiency;
- recycling and recovery targets;
- alternative options; and
- site design and environmental protection.

Regional and Local Policy

5.88 Planning policy at national, regional and local levels has been considered in detail in Section 4 above, having regard to:

- Planning Policy Guidance (PPG) Notes and Planning Policy Statements (PPSs);
- Waste Strategy 2000;
- Regional Spatial Strategy (RSS) 8 (formerly termed Regional Planning Guidance Note);
- Nottinghamshire and Nottingham Joint Structure Plan;
- Ashfield Borough Local Plan;
- Nottingham and Nottinghamshire Waste Local Plan; and the
- Derby and Derbyshire Waste Local Plan.

5.89 In particular, it has been demonstrated that the proposals accord with relevant planning policies; would not lead to any detrimental impact to any statutorily designated areas; or result in any significant loss of amenity to local residential areas.

5.90 Waste Management strategies for the area include:

- Nottinghamshire Municipal Waste Strategy
- Nottinghamshire CC options assessment report in support of the current PFI contract tender process
- Derby and Derbyshire Municipal Waste Strategy
- East Midlands Regional Spatial Strategy on Waste
- East Midlands RTAB Technical BPEO Assessment (as superseded by the Regional Waste Strategy).

5.91 The draft BPEO assessment undertaken for the County relates to Municipal Waste only and identifies two options considered to represent the BPEO envelope. Both options identify the continued need for landfill within the sub-region principally as a tertiary residual treatment stage following secondary treatment through Energy from Waste (either as a dedicated standalone

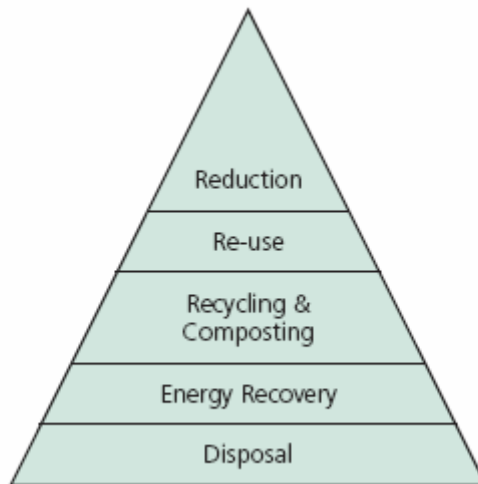
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facility [Option 3] or in combination with a Mechanical Biological Treatment facility [Option5]).

- 5.92 The regional BPEO work assessed and identified the waste management needs for all controlled wastes including Commercial, Industrial, Construction and Municipal, characterising these wastes into two principal waste streams of inert and non-inert wastes. The findings of the original technical assessment identified Option 4 as the BPEO, although the RTAB identified Option 2 as the basis for Regional Planning Guidance. Continued landfilling is highlighted for both options and clearly demonstrates a need for securing future landfill capacity well into the future.

Waste Hierarchy

- 5.93 The waste hierarchy is defined in Annex C to PPS 10 as:



- 5.94 It states that waste management activities should be prioritised as follows:
- reducing the generation of waste – *reduction*;
 - using products and materials again – *re-use*;
 - value can be recovered from waste through recycling, composting or energy recovery; and,
 - only if none of the above offers an appropriate solution should waste be disposed of.

- 5.95 The first two tiers of the waste hierarchy consider ways of decreasing the volume of waste that needs to be managed, and therefore are aimed at developing strategies and initiatives prior to the waste being collected. The third and fourth tiers of the hierarchy consider what can be done with the waste streams that are collected. Successful waste reduction can often be the result of a dynamic interaction between producers and consumers. For instance, businesses need to consider ways to reduce waste from the manufacturing process through to the way it is transported, packaged and sold. Consumers on the other hand can make active decisions in the choice

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of the goods they purchase. Some products are designed to be re-used by the consumer: rechargeable batteries and food/drink containers. Other goods can be refurbished or reconditioned to enable them to be put to the same use for longer, for example plastic shopping bags, furniture and computer equipment.

- 5.96 Although being at the top of the waste hierarchy, neither reduction nor re-use have any significant bearing on development proposals for waste management facilities. These issues can only really be realised through appropriate 'education'.
- 5.97 For waste management facilities, the waste hierarchy favours recycling and composting, with thermal treatment (Energy from Waste) and landfill ideally preferred for dealing with residual wastes that are not capable of being recycled further. This does not mean that landfill, for instance, can not be a sustainable option for a waste stream. Indeed, the Waste Strategy 2000 recognises that there will be cases where landfill does represent part of the BPEO.
- 5.98 The landfill facility at Bentinck would offer a waste management option that permits the safe disposal of non-hazardous wastes that are not capable of further recycling or from which additional value can not be recovered: in other words, they are residual wastes which occupy the bottom level of the hierarchy.

The Proximity Principle and Self Sufficiency

- 5.99 Whilst not referring to the "*Proximity Principle*" PPS 10 provides that waste should be disposed of at one of the nearest appropriate installations. Similarly, PPS 10 provides that communities should take more responsibility for their waste ("*self sufficiency*"). This is in part to ensure that problems are not exported to other regions or countries. It also involves recognition that the transportation of wastes can have a significant environmental impact. A network of facilities would enable these environmental impacts, and in many cases financial costs, to be reduced.
- 5.100 The proximity principle can make the link between the waste hierarchy and most sustainable option. Where the sustainable option for a particular waste stream is an option towards the lower end of the hierarchy, this can often be because the environmental impact or cost of transport to a distant reprocessing facility further up the hierarchy outweighs the benefit of recovering the waste. So, for example, the adverse environmental, social and economic impacts associated with an extension to a local landfill may, when aggregated, be less than those associated with transporting waste to the nearest waste recovery facility. Factors to take into account in making such a judgement might include:
- traffic generation, energy use and pollution;
 - local employment; and
 - environmental enhancement associated with landfill restoration.

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- 5.101 The relationship between waste management facilities and the transport network (road, rail and water) is a significant factor affecting the implementation of the proximity principle. While the overall objective is to locate facilities as close as practicable to identified sources of waste, it will not always be possible to find suitable sites nearby. For example, city centres generate large volumes of waste but often land is at a premium and more likely to be developed for higher value uses. The ease with which waste can be transported from such areas will therefore influence the siting of facilities.
- 5.102 PPS 10 refers to communities being responsible for their own waste, with regional planning bodies providing sufficient opportunities to meet the needs of their area for waste management. Each region should provide for facilities with sufficient capacity to manage the expected quantity of waste arising for between 15 to 20 years.
- 5.103 The proposed facility at Bentinck is intended to accept residual non-hazardous waste from the Ashfield/Mansfield and Greater Nottingham areas, as depicted on Plan 10.2 in the WLP. However, the proximity of the A608 and M1 mean that the site is well placed to serve a wider market, should shortfalls be experienced elsewhere, and in particular, the neighbouring area of Derbyshire. There is currently one landfill site within the Mansfield/Ashfield area (Sutton) which offers the disposal of non hazardous wastes. This site is due to close during 2007. The next nearest sites are Rufford (which is inactive) and Bilsthorpe. For the Greater Nottingham area, there is only one active landfill site, Dorket Head following the closure of Burntstump. IN Derbyshire, there are only two landfill sites to serve the whole of the county, one of which will close within the next year. The remaining site is located in the north east of the County.
- 5.104 The application site is situated centrally within the Mansfield/Ashfield shortfall area. The proximity and the configuration of the primary highway network in the vicinity of the application site means that collected waste can be transported from its source to the disposal facility without giving rise to significant traffic related impacts, such as congestion.

Recycling Targets

- 5.105 The recycling and recovery targets prescribed in the Waste Strategy 2000 have been set out in paragraph 4.32 in Section 4.
- 5.106 For the districts and boroughs within Nottinghamshire, recycling rates of between 18% and 30% for 2005/6, compared with a rate of around between 9% and 23% achieved in 2002/3¹⁸. If the Council failed to achieve these targets, by either recycling or composting, the Council would incur penalties

¹⁸ See earlier Table 5/3

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from Government; therefore, they must be attained and, if possible, exceeded.

- 5.107 Through the PFI process Nottinghamshire County Council, via the preferred bidder (Veolia Environmental Services Limited¹⁹) are putting in place the necessary facilities to deliver the statutory targets. The proposals set out in this application are designed to manage the residual waste stream after all recyclables have been removed from both Nottinghamshire and Derbyshire, together with commercial and industrial wastes. As such, the proposals do not compete with other recycling or recovery initiatives.

Alternative Options

- 5.108 Alternative options present themselves in the form of technology and the choice of site location.
- 5.109 Whilst overall, a range of facilities will be required throughout Nottinghamshire, Derbyshire and indeed the region at large if the recycling targets are to be met, the emerging strategies and preferred options identified to a greater extent limits the type of waste management facilities required.
- 5.110 Alternative options have also been considered at paragraph 0 *et seq* above.

Site Design and Environmental Protection

- 5.111 In designing the proposed facility, regard has been given to ensuring that any environmental intrusion is appropriately mitigated, such that any residual impacts are kept to a minimum. In this respect, subsequent Sections within the ES (*i.e.* Sections 6 to 16) should be referred to. In essence, however, all the environmental factors or receptors identified in the Council's Scoping Opinion prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 have been addressed.
- 5.112 The outcome of the various environmental studies undertaken as part of the EIA demonstrates that the potential impacts on all the environmental receptors (after appropriate mitigation where necessary) fall well within acceptable limits, and/or meet the relevant criteria, set out in Government guidance, the Development Plan and other material guidance and practice. Neither individually, nor cumulatively do such impacts constitute such a substantial or overriding environmental disbenefit to outweigh the wider environmental benefits of the proposal.

¹⁹ Previously known as Onyx

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Conclusions with Regard to Alternatives and Sustainability

- 5.113 This assessment of the alternatives to the proposed development has shown that there are no credible alternatives given that the need for landfill void space has been assessed on a conservative basis after taking account of all aspirational waste recycling and recovery targets.
- 5.114 In that the landfill proposals would use residual waste to secure the restoration of previously used land, and would not impact the rates of recycling or recovery, it is considered that the proposals represent a sustainable use of residual waste to secure long term restoration objectives.