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INTRODUCTION

5.1 The need for a new waste management facility is a material consideration which is to be balanced against the assessment of the acceptability (in terms of environmental harm) of the proposed development. Many planning policies, be it at national or local level, provide for this planning balance, often allowing development to proceed where the need for the development outweighs the environmental harm.

5.2 Notwithstanding this, 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 PPS 10 states in respect of the demonstration of need (paragraph 22):

“Development plans form the framework within which decisions on proposals for development are taken. It is important that plans are kept up to date and properly reflect national policy. When proposals are consistent with an up to date development plan, waste planning authorities should not require applicants for new or enhanced waste management facilities to demonstrate a quantitative or market need for their proposal”.

5.4 Allied to this, the Companion Guide¹ to PPS10 at paragraph 7.27 comments that:

“The ‘demonstration’ sought by PPS10 is a broad test intended to ensure sufficient opportunities for waste management. It is not intended as a rigid cap on the development of waste management capacity in line with the core strategy.”

5.5 This sentiment has recently been echoed in the inspectors report into the Ince Marshes planning inquiry².

5.6 Finally, in relation to the EIA Regulations, Schedule 4³ requires a consideration of:

“An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects”

¹ Planning for Sustainable Waste Management: Companion Guide to PPS 10. 2006

² Appeal under Section 78 TCPA 1990 by Peel Holdings Limited relating to a Refuse Derived Fuel plant and a Resource Recovery Park on land at Ince Marshes. DCLG ref. APP/Z0645/A/07/2059609

³ Parts 1 (2) and 2 (4)

- 5.7 It is though silent on the consideration of the need for a development. As such, Section 5 of the ES sets out the alternatives that have been considered as part of the EIA, whilst this section of the Planning Statement sets out the drivers behind the need for the development.

OVERVIEW OF THE DEVELOPMENT

- 5.8 As noted in Section 1 above, planning permission is being sought to construct an ERF with a capacity to treat up to 300,000t of residual waste per annum. By the term residual, recyclable materials would have been removed from the waste streams, either at source, or through other processing facilities. In so doing, the proposed ERF would not compromise current and proposed efforts to maximise the amount of waste recycled. In the absence of this type of development, the residual waste streams would be landfilled.
- 5.9 The ERF has been designed to be able to accept a range of residual municipal, commercial and industrial wastes. The overall balance of the waste types making up the total inputs would be governed through the outcome of the current PFI procurement process. Leicestershire County Council has indicated that the successful facility would need to have the capacity to manage up to 180,000t of residual municipal waste. Should the applicant be unsuccessful in the PFI bid, then it would operate the proposed ERF as a 'merchant' facility, where all the waste inputs would be made up of commercial and industrial wastes. Current arisings of such waste within Leicestershire (including the City of Leicester) is in the order of 1.27Mt, with nearly 600,000t being landfilled. In this respect, the applicant already has a successful collection business operating throughout Leicestershire. That said, cognisance must be had of the guidance in PPS 10 for waste to be managed in one of the nearest appropriate installations; given the location of the Newhurst site to the M1, together with the county boundaries with Derbyshire and Nottinghamshire, then waste could be imported from the "Three Cities" sub-region referred to in the RSS.
- 5.10 Finally, planning permission has already been granted on the Newhurst site for a 275,000tpa non-hazardous landfill site; this facility would manage the same waste streams as the proposed ERF, and thus, in terms of the overall management of waste within the County, there is little change.

INFORMATION SOURCES

- 5.11 The following sources of information have been used to assess the need for, and scale of, the ERF at Newhurst:
- Waste Strategy for England 2007 (May 2007);
 - PPS10 (2005) and attendant Companion Guide (2006)
 - the Regional Waste Strategy for the East Midlands (January 2006);
 - Development of a Regional Waste Management Strategy for the East Midlands: Technical Report (2002);
 - East Midlands Regional Plan (RSS 8) (March 2009);
 - Leicestershire Municipal Waste Management Strategy (2006);
 - the adopted Leicestershire Waste Local Plan (2007);

- the emerging Waste Development Framework (WDF), comprising
 - Core Strategy
 - Site Allocations Development Plan Document: Preferred Options
- papers and studies prepared for the WDF, including:
 - Waste Needs Assessment (2008);
- Annual Monitoring Reports;
- Landfill Allowance Trading Scheme data published by DEFRA
- Long Term Residual Waste Treatment Procurement (2007)
- Leicestershire Waste PFI: Outline Business Case (2008)

WASTE STRATEGIES

5.12 Waste Strategies have been published at the national, regional and local level. The national waste strategy implements the requirements of the European Landfill Directive.

5.13 Both national and regional strategies address all waste streams whilst the local waste management strategy covers municipal solid waste (MSW).

Waste Framework Directive (2008/98/EC)

5.14 The recently revised Waste Framework Directive⁴ (which came into force on the 12 December 2008) establishes the overarching framework for the management of waste across the EU. It requires Member States to “bring into force the laws, regulations and administrative provisions necessary to comply with this Directive”, within 2 years of its entry into force. The Directive brings together existing elements of waste legislation within a single Directive and introduces a new approach to waste management which focuses more strongly on the prevention of waste. In summary the revised Directive:

- Repeals the current Waste Framework Directive (2006/12/EC), the Directive on Hazardous Waste (91/689/EEC) and part of the Directive on Waste Oils (75/439/EEC).
- Introduces a new 5-point waste hierarchy, based on:
 - Prevention (preferred option);
 - Preparing for re-use;
 - Recycling;
 - Other recovery (e.g. energy recovery)
 - Disposal.
- The changes in emphasis in this revised hierarchy are both the preference for waste prevention and the consideration of energy as recovery (with stipulations on energy efficiency of 65%).

⁴ EU Waste Framework Directive 2008/98/EC was signed on behalf of the European Parliament and the Council on the 19 November 2008 and published in the Official Journal on the 22 November 2008 as Directive 2008/98/EC. Article 40 requires Member States to take the steps necessary to comply with the Directive within 24 months of the date of its entry into force. i.e. by 12 December 2010.

Landfill Directive (99/31/EC)

- 5.15 The Landfill Directive⁵ aims to prevent the negative impacts of landfill through four key measures:
- To reduce the proportion of biodegradable waste landfilled to:
 - 75% of that produced in 1995 by 2010
 - 50% of that produced in 1995 by 2013
 - 35% of that produced in 1995 by 2020
 - To ban the co-disposal of hazardous waste with non-hazardous material from 2004, and requiring the re-classification of all landfills to receive hazardous, non-hazardous or inert wastes only
 - Banning the landfilling of liquid wastes and certain hazardous materials
 - Requiring the pre-treatment of certain wastes prior to landfilling

National Waste Strategy (2007)

- 5.16 Following an extensive consultation period revisions to the Waste Strategy for England were published in May 2007, replacing the Waste Strategy 2000.
- 5.17 The introduction to the strategy notes that MSW arisings are “*growing much slower than the economy at 0.5% per annum*”.
- 5.18 The salient points of the strategy that are relevant to the consideration of the need for the Newhurst facility are:
- to meet and exceed the landfill Directive diversion targets by setting higher targets for MSW re-use, recycling and composting of 40%, 45% and 50% by 2010, 2015 and 2020 respectively;
 - to set targets for MSW recovery (including recycling, composting and recovery) of 53%, 67% and 75% by 2010, 2015 and 2020 respectively;
 - to use of the private finance Initiative (PFI), the Renewables Obligation and enhanced capital allowance initiatives to increase the amount of MSW that is treated using energy from waste techniques to 25% of arisings by 2020;
 - to increase the diversion from landfill of non-municipal waste, expecting the reduction of commercial and industrial (C&I) waste going to landfill by at least 20% by 2010 compared to 2004; and
 - recognition that changes to patterns of waste management have a significant role to play in the reduction of greenhouse gas emissions.
 - the possibility (after further analysis and consultation) of banning biodegradable and recyclable waste from landfill.
- 5.19 The strategy recognises that recovering energy from waste which can not sensibly be reused or recycled “*is an essential component of a well balanced energy policy*”. The strategy recognises that many European countries already vigorously pursue energy recovery; Denmark for instance generates

⁵ Landfill Directive 1999/31/EC was transposed into domestic legislation by the Landfill (England and Wales) Regulations which came into force on the 15 June 2002.

3.6% of its electricity as energy from waste. It also notes that evidence from European countries is that very high rates of recycling and recovery of energy from waste often coexist, which demonstrates that an energy from waste strategy is not incompatible with high recycling rates. The strategy states that it is the Government's view, that the achievement of high recycling and energy recovery rates can be achieved by "*planning and building facilities with an appropriate amount of flexibility built in*".

- 5.20 The strategy provides very little information or guidance on C&I waste other than forecasting a reduction in the amount of C&I waste that is landfilled. It does though signal that new national targets will be set for reducing the amount of C&I waste landfilled.
- 5.21 The sizing of any major treatment and/or EfW facility has to be sensitive, therefore, to future trends in waste arising, potential recycling rates and other methods of waste treatment. It should take account of the need for future treatment of not just MSW but also C&I waste. The ERF has been designed to offer the required flexibility.

Other Drivers

Landfill Tax

- 5.22 The Landfill Tax Regulations 1996 set out the basis for a tax on landfill. Key features of the regulations are:
- The Regulations set out the basis for the tax aimed at encouraging waste producers to produce less waste and recover more value from their waste.
 - Acts as a mechanism to off-set the cost of landfill to make alternatives more competitive.
 - Through the Landfill Tax Credit Scheme, landfill site operators who make contributions to bodies with objectives concerned with the environment, enrolled under the Landfill Tax Credit Scheme, may claim a credit against their annual landfill tax liability. The maximum credit that they may claim currently is 6.8 per cent of that liability.
- 5.23 In the March 2007 Budget, the Treasury announced an increase to the annual Landfill Tax escalator to £8 per tonne from 2008/9 to 2010/11 for active waste. Further £8 increases per year until 2013 were announced in the April 2009 Budget. As a result, Landfill Tax for active waste has been set at: £40 per tonne from 1st April 2009, £48 from 1st April 2010, £56 from 1st April 2011, and £64 from 1st April 2012. This tax has an impact on the management of all active waste sent to landfill whether municipal, commercial or industrial in origin and is a major driver for change away from landfill disposal.

Landfill Allowance Trading Scheme

- 5.24 On 1 April 2005, the Landfill Allowance Trading Scheme (LATS) was launched in England. The scheme is aimed at helping waste disposal

authorities to reduce the amount of biodegradable municipal waste (BMW) sent to landfill.

- 5.25 The Waste and Emissions Trading Act (2003) provides the legal framework for the scheme and for the allocation of tradable landfill allowances to each waste disposal authority in England. These allowances convey the right for a waste disposal authority to landfill a certain amount of biodegradable municipal waste in a specified scheme year. Exceeding the amount of BMW landfilled results in fines being levied on the waste disposal authority.
- 5.26 Each waste disposal authority can determine how to use its allocation of allowances in the most effective way. It will be able to trade allowances with other authorities, save them for future years (bank) or use some of its future allowances in advance (borrow). This will allow individual waste disposal authorities to use their allowances in accordance with their investment strategy. Details of the LATS scheme can be found on the Defra website⁶.
- 5.27 For Leicestershire and Leicester City, the amount of BMW that may be landfilled is set out in Table 5-1 below. It should be noted that BMW accounts for around 68% of MSW, and thus the allowable amount of MSW that can be landfilled will be greater than the amount of BMW. Leicester City already has provisions in place for managing MSW by awarding a 25 year contract to Biffa Waste Services.

**Table 5-1
LATS Allowances for Leicestershire and Leicester City**

Year	Leicestershire (t)		Leicester (t)		Framework Total (t)	
	BMW	MSW	BMW	MSW	BMW	MSW
2009/2010	138,123	182,322	56,656	74,786	194,779	257,108
2014/2015	84,107	111,021	34,500	45,540	118,607	156,561
2019/2020	64,375	84,975	26,406	34,856	90,781	119,831

Source: <http://www.defra.gov.uk/environment/waste/localauth/lats/pdf/tableb-latsallocat.pdf>

Energy Policy

Energy Strategy

- 5.28 “*Meeting the Energy Challenge*”, a White Paper on Energy was published by the Department of Trade and Industry in May 2007. Section 5.3 of the White Paper is concerned with renewable energy and recognises that EfW can play a role in the UK’s energy supply.
- 5.29 The development of sources of renewable energy is an integral part of the Government’s strategy, expressed in the draft Climate Change Bill published in March 2007 for reducing carbon dioxide emissions by at least 60% (2050) and at least 26% (2020) of a 1990 baseline.

⁶ <http://www.defra.gov.uk/environment/waste/localauth/lats/>
Newhurst Quarry – Volume 1

- 5.30 The White Paper recognises that generating energy from residual waste has both energy and waste policy benefits, particularly in terms of security of supply. In addition the biodegradable fraction of waste is a renewable resource from which energy can be recovered.
- 5.31 Referring to the Department of Energy and Climate Change's letter dated 11 August 2009 regarding the Ince Marshes appeal, paragraph 6.4 comments that (emphasis added) "*the Government's policy on energy is set out in the Energy White Paper ...and includes the view that a diverse mix of energy technologies, **including energy from waste generation**, will be required to combat climate change and provide secure, clean and affordable energy*".

Energy Act

- 5.32 The Energy Act 2008, which came into force in November 2008, implements the legislative aspects of the Government's 2007 Energy White Paper. In summary, the Act:
- Strengthens the existing regulatory framework to support private sector investment in Offshore gas supply infrastructure
 - Creates a regulatory framework to support private sector investment in Carbon Capture and Storage projects for fossil fuel power stations
 - Enables changes to the Renewables Obligation;
 - Enables the Government scheme on Feed-in Tariffs; designed to support low carbon generation of electricity in projects up to 5MW;
 - Strengthens decommissioning provisions to minimise the risk of liabilities falling to the Government from the decommissioning of offshore renewables and oil and gas installations;
 - Introduces improvements to the licensing regime for offshore oil and gas in response to changes in the commercial environment;
 - Includes requirements for operators of new nuclear power stations to accumulate sufficient funds to meet the full costs of decommissioning and their full share of waste management costs;
 - Includes powers to assist Ofgem in the regulation of licensing for offshore electricity transmission;
 - Requires electricity and gas suppliers to install Smart Metering Systems in customer premises (including domestic); and
 - Establishes the Renewable Heat Incentive.

Regional Waste Strategy

- 5.33 The introduction to the Regional Waste Strategy (RWS) indicates that the East Midlands generates over 25Mt of waste per year, with some waste streams growing by 3% per annum. In view of the European and National targets, the strategy states that "*the UK is facing a period of rapid and radical change*". *It is no longer possible or practical for us to continue to dispose of the majority of waste by burying in landfill*".
- 5.34 Five key priority areas are mentioned, including "*increasing the amount of energy generated from renewable sources*".

- 5.35 The RWS provides useful data on waste arisings, but recognises the limitations in terms of quality and quantity of the data; data on MSW is noted as being accurate due to the requirements on local authorities to monitor and report on their activities. However, data for other waste streams is not so strong.
- 5.36 In terms of “*controlled wastes*” in 2003, 20.6Mt was generated. The largest proportion of this waste was construction/demolition waste and C&I waste; MSW accounted for 12% of the total waste generated. In terms of the management of this waste during 2002/3:
- around 8Mt was landfilled
 - around 150,000t were incinerated (primarily at Eastcroft, Nottingham)
 - around 2.2Mt was treated in some way (recycled, composted or other treatment); and
 - around 2.5Mt passed through transfer facilities, including civic amenity sites.
- 5.37 Referring to the table at the top of page 19 of the RWS approximately 13Mt were treated, disposed of or transferred through licensed facilities. For Leicestershire, the amount of waste handled was 2.2Mt, representing 17.5% of the regional total.
- 5.38 For MSW, the region generated 2.4Mt during 2003/4. On average, growth has been just over 3% per annum; however, MSW arisings in the region decreased slightly during 2003/4. Recycling and composting rates have increased from 7% to 20% between 1996/7 and 2003/4, but 73% is still landfilled.
- 5.39 For C&I waste, approximately 8mt was produced, of which 5.7Mt (71%) were industrial in origin and 2.3Mt (29%) were commercial in origin.
- 5.40 The RSW (in Appendix 4) sets out predictions for future growth in both MSW and C&I waste, which are set out in Table 5-2 below.

**Table 5-2
Annual Waste Growth Rates Employed in the
East Midlands Regional Waste Strategy**

Period	MSW	Annual Growth Rate (%)	
		Commercial	Industrial
2002-06	3.6	2	-1
2007-15	1.7	1	-1
2015-20	0	0	-1

- 5.41 From this, the RWS forecasts the waste arisings between 2003/4 and 2021/2. For MSW this increases from 2.37Mt to 2.96Mt, whilst C&I waste decreases from 8.093Mt to 7.458Mt. A copy of Appendix 4 to the RWS is included in Appendix 5/1 to this section.
- 5.42 The RWS considers available treatment capacity and future requirements. Current treatment capacity is estimated at around 12Mt per annum, provided

by 819 facilities. 568 (69%) of these facilities operate under exceptions from waste management licensing. The RWS goes on to state that around 40% of the facilities classed as exempt or operated under a “Part B” authorisation are not actually operational, thereby reducing the number of operational facilities to around 400. The RWS also adds that the capacity includes over 5.5Mt of metal waste treatment capacity and 2.4Mt of capacity for crushing and screening soil and concrete wastes. Appendix 6 to the RWS provides further details of treatment capacity within the region, broken down on a sub-regional basis; this is considered further in paragraphs 5.84 *et seq* below.

- 5.43 Taking into account landfill capacity across the region, the East Midlands has the capacity to treat or dispose of around 17.8Mt of waste per annum. With arisings of controlled wastes estimated to be in the order of 21Mt to 22Mt, there is a slight deficit in capacity. In the future, the RWS indicates that with the steady reduction in the proportion of waste landfilled, “*significant capacity of alternative treatment or disposal solutions will have to be developed*”. If the targets for the reduction in waste growth and in increase in recycling/recovery are to be met, the RWS indicates that a further capacity to recover or treat 1Mt per annum of MSW and C&I waste will be required. However, if the identified landfill capacity requirement is no longer available, then further alternative recovery or treatment capacity will have to be created.
- 5.44 In terms of the type of treatment facility, the RWS refers to a report undertaken in 2002. The technical report analysed and identified the options to deliver a sustainable and integrated waste management strategy for the East Midlands until 2021. A total of five options, including a “*do nothing scenario*”, were assessed against twelve objectives that covered environmental, socio-economic, and operational and policy issues. The report concluded that an option based on exceeding targets with an intermediate recycling/composting effort, high EfW, and low landfill would perform best. The RWS though has not though sought to be prescriptive over the form of waste recovery.

Leicestershire Municipal Waste Management Strategy

- 5.45 The Leicestershire Municipal Waste Management Strategy (LMWMS) was published in May 2006, and is therefore cast against the background of the 2000 Waste Strategy. One of the key challenges of the LMWMS is that almost all of the MSW collected in the County that is not recycled or composted is sent to landfill, and some waste is being managed (by disposal) in neighbouring counties.
- 5.46 Within Section 3 (“*Scope and Context*”) of the LMWMS it indicates that “*waste that cannot be re-used, recycled, or composted can have value recovered from it through energy recovery...*” Section 6 sets out 11 core objectives, which include:
- to manage waste in accordance with the waste hierarchy (Objective 1)
 - to manage resources and waste in a way that meets the needs of Leicestershire’s residents now without compromising the ability of future generations to meet their own needs (Objective 2)

- to deliver quality services which offer value for money (Objective 3)
- to work together to research and develop co-ordinated services (Objective 5)
- aim to manage residual waste within the county where this is consistent with the proximity principle (Objective 6)
- consider approaches to manage C&I waste.

5.47 Finally, Section 7 sets out the Strategic Policies. Of particular note is **Policy 5**, which sets out the recycling targets for Leicestershire, being to achieve:

- 40% of municipal waste by 2007;
- 50% of municipal waste by 2010; and
- 58% of municipal waste by 2017

5.48 **Policy 9** is also of note, as it seeks to progressively reduce the volume of residual waste per person from 395kg in 2007 to 295kg in 2020. Allied to this, section 7.5.2 recognises that landfilling untreated waste is neither prudent nor sustainable, leading to **Policy 10**, which seeks to reduce the amount of unstabilised waste (being defined as waste that has not been pre-treated to reduce its biodegradability) sent to landfill. In considering treatment other than landfill, Section 7.5.3 indicates that in choosing waste treatment technologies, the issues of deliverability, lead time for commissioning, reliability and sustainability of markets for output materials will be considered with care. **Policy 11** therefore states:

“The Leicestershire authorities will ensure that the way residual waste is treated supports efforts higher in the hierarchy. They will aim to achieve self-sufficiency in Landfill Allowances where this represents best value and to minimise the need to have recourse to the LATS market”

5.49 Finally, **Policy 12** provides that:

“The Leicestershire Authorities will seek a residual waste management solution which respects the Authorities’ desire to move waste up the hierarchy, which is reliable and deliverable, which presents value for money and which is consistent with the Partnership’s Response to LATS set out in section 8 of this Core Strategy”.

PLANNING POLICY

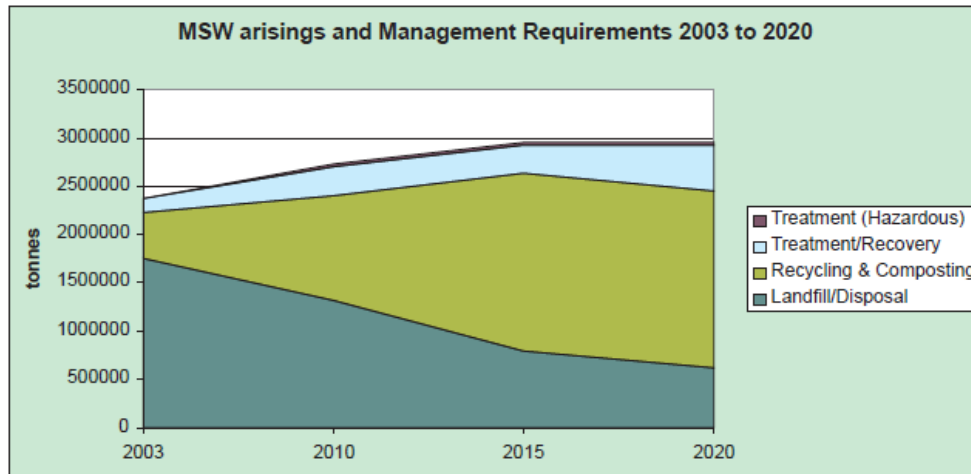
5.50 Section 4 has provided a full review of the relevant planning policies. However, those policies at national, regional and county level which are relevant to the need for the facility and its sizing have been reviewed below.

Regional Spatial Strategy

5.51 As noted in the previous section, the regional priorities for waste reduction and management are set out in paragraphs 3.3.56 to 3.3.73, culminating in **Policy 38**. Paragraph 3.3.62 recognises the need for the provision of new facilities, including additional capacity for waste recovery, which may include EfW. This is illustrated in Figure 3 (reproduced below) in the RSS, which

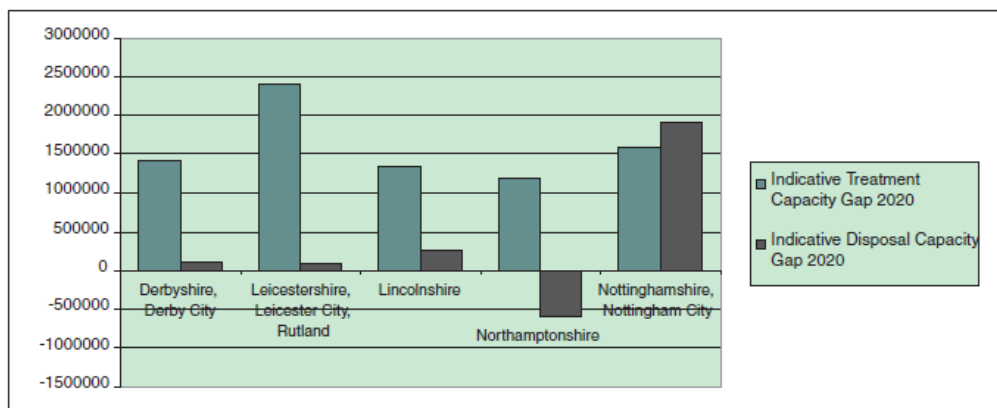
summarises the requirements for managing MSW over the period to 2020 and shows a declining volume of waste being landfilled, with increasing amounts of recycling/composting and recovery/treatment.

Figure 3 from RSS



5.52 Paragraph 3.3.64 refers to research that has been undertaken on behalf of the East Midlands Regional Assembly, which indicates that waste management capacity will need to more than double by 2020. The predicted treatment capacity gap is illustrated in Figure 4 in the RSS. From Figure 4, it can be seen that the Leicestershire sub-region has the largest treatment capacity gap in the East Midlands.

Figure 4 from RSS



5.53 **Policy 38** sets out the regional targets for managing MSW, stating that “All Waste Collection Authorities and Waste Disposal Authorities should achieve a minimum target for the recycling and composting of Municipal Solid Waste of 30% by 2010 and 50% by 2015”.

5.54 Finally, Appendix 4 provides details of the sub-regional apportionment of waste.

Local Policy

Waste Local Plan

- 5.55 The waste local plan did not provide any numerical analysis for the provision of new recovery facilities. As noted in the previous section, in relation to the management of residual waste, the plan relies heavily on landfill, with a specific allocation at Newhurst, to which **Policy WLP15** refers

Waste Development Framework

- 5.56 Chapter 4 of the Core Strategy⁷ provides details relating to the need for new waste management facilities. In particular, paragraph 4.3 comments (emphasis added):

*“Once the recycling and composting targets are reached there remains an element of municipal waste which needs to be diverted away from landfill. Energy/value recovery of municipal and C&I waste will require a minimum total of 114,000 tonnes per annum capacity to be found. Such a requirement could probably be met by 1 or 2 facilities depending on the type of treatment technology. 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. To prevent this amount all having to go to landfill a further 5 at 250,000tpa or 18 at 50,000tpa energy/value recovery facilities would be required**”.*

- 5.57 Paragraph 4.4 then identifies a need for further landfill capacity to be provided within the plan period, indicating that one additional non-inert landfill site will be required by 2014, with a further one or two landfill sites required, depending upon the amount of energy/value recovery capacity that is developed within the WDF period.
- 5.58 The need for new facilities is also set out in Chapter 2 of the Site Allocations Preferred Options DPD⁸, which effectively repeats the content of the 2008 Need Assessment⁹ (refer to paragraph 5.93 below). Paragraphs 2.39 to 2.41 of the assessment address energy recovery, re-iterating the anticipated shortfalls for MSW. Paragraph 2.41 also recognises that the residual capacity of MSW and C&I waste could also be managed by this means, as opposed to relying on landfill.

⁷ Leicestershire and Leicester Waste Development Framework: Core Strategy and Development Control Policies. October 2009.

⁸ Leicestershire and Leicester Waste Development Framework: Site Allocations Preferred Options DPD. July 2006

⁹ Waste Needs Assessment. Leicestershire County Council. June 2008

CURRENT WASTE ARISING AND RECYCLING RATES

- 5.59 In order to avoid over-provision of capacity for the treatment of residual non-hazardous wastes, it is necessary to have regard to the latest information regarding waste arisings in Leicestershire, the way in which such wastes are already managed and the likely changes that will result for the letting of a long term contract to manage residual MSW.
- 5.60 A number of data sources provide information on waste arisings and recycling rates; however, some, such as the RWS, refer to "*Leicestershire, Leicester and Rutland*" (i.e. the former county area before local government reorganisation), whilst others refer to "*Leicestershire*", or "*Leicestershire and Leicester*" (the latter being the area covered by the emerging Waste Development Framework and referred to as the "*framework area*").
- 5.61 Data has primarily been obtained from the Annual Monitoring Reports (AMR) published by Leicestershire County Council. This data has been supplemented by information contained in the documents produced for the PFI procurement for a long term residual waste treatment facility refer to paragraph 5.82 below) and the baseline report produced for the WDF. It has been noted that there are small discrepancies between these reports in the figures presented, and thus it is difficult to get a consistent picture.

MSW

- 5.62 MSW arisings in Leicestershire are monitored and reported on an annual basis and the data are considered to be reliable.
- 5.63 The RWS indicates for 2003, the *Leicestershire, Leicester and Rutland* area generated 534,151t of MSW.
- 5.64 The 2005 AMR indicates that MSW arisings between 1999/00 and 2004/5 increased from 326,142t to 385,821t for Leicestershire, and 137,969t to 152,319t for the City of Leicester. Table 5-3 below summarises the MSW arisings during this period.

Table 5-3
Municipal Waste Arisings 1999/00 - 2004/05

Period	Leicestershire (t)	Percentage Change	Leicester City (t)	Percentage Change	Framework Area Total (t)
1999/00	326,142		137,969		464,111
2000/01	340,979	4.5	139,349	1.0	480,328
2001/02	358,663	5.2	146,218	4.9	504,881
2002/03	371,933	3.7	153,066	4.7	524,999
2003/04	366,981	-1.3	147,782	-3.5	514,763
2004/05	385,821	5.1	152,319	3.1	538,140

Source: Annual monitoring report November 2005

5.65 Paragraph 3.29 of the 2005 AMR indicates that there was a 9.5% increase in the amount of household waste produced from 1998/99 to 2002/03, which equates to an average 2.4% increase per year. There was a 4.4% decrease in the household waste collected between 2002/03 and 2003/04. In terms of the management of this waste, the same AMR (paragraph 3.31) comments

“In 2002/03 a total of 45,118 tonnes of household waste was recycled or composted by Collection Authorities including the City Council, compared to 56,308 tonnes recycled or composted household waste in 2003/04. This represents an average recycling rate of 12.9% in 2002/03 and 16.8% in 2003/04. In 2003/04, 47,390 tonnes of civic amenity waste was recycled which is a rate of approximately 39%”.

5.66 Paragraph 3.33 *ibid* indicates that 62% of waste sent to landfill for disposal was exported to Warwickshire, Northamptonshire or Lincolnshire.

5.67 In subsequent AMRs, the figures are quoted for Leicestershire are summarised in Table 5-4 below.

**Table 5-4
Municipal and Household Waste Arisings and Management (Leicestershire)**

Period	MSW (t)	Household (t)	Composted (t)	Recycled (t)	Landfill (t)
2005/06	374,507	340,365	71,633 (21.07%)	66,429 (19.54%)	201,488 (59.28%)
2006/07	375,103	341,071	74,927 (21.97%)	70,316 (20.62%)	194,826 (57.12%)
2007/08	(1)	340,947	74,885 (21.96%)	70,149 (20.57%)	195,045 (57.19%)

(1) Not reported

Note: Percentages do not sum to 100% as small amount of waste is sent for incineration outside of the County.

5.68 The AMR for the period 1 April 2008 to 31 March 2009 has just been published on the County Council’s website. The level of information provided is not so detailed: it indicates that arisings of MSW were 359,744t, with 46.03% recycled or composted, energy recovered form 1.9% and 50.5% landfilled.

5.69 From Table 5-4, it can be seen that there has been little, if any, growth in MSW, with very slight increased in the proportion of wastes composted or recycled. Landfill still represents the main route for managing waste, declining only by around 2% between 2005/6 and 2007/8. However, figures within the latest AMR show a more pronounced drop (around 6.7%) in the proportion of waste sent to landfill over the last year. In terms of MSW arisings, it is unclear whether the figure relates to total MSW arisings, or household waste arisings.

C&I

- 5.70 Figures for C&I waste are not so widely reported. The RWS indicates for 2003, the *Leicestershire, Leicester and Rutland* area generated 534,060t of commercial waste and 807,940t of industrial waste (*i.e.* 1.34Mt combined).
- 5.71 The 2005 AMR refers to the draft of the RWS, indicating that the strategy forecast C&I waste (including Rutland) to be in the order of 1,125,460 tonnes by 2003. It then comments that “*according to EA returns, during 2003/04 approximately 600,000 tonnes of this waste stream was handled by facilities within the framework area*”
- 5.72 The 2007/8 version of the AMR refers to the 2003 figure in the RWS for C&I waste, with a 5% adjustment for Rutland to give 1.27Mt. It also indicates the following proportions being managed.

Table 5-5
Commercial and Industrial Waste Arisings (Leicestershire and Leicester)

Management Method	Commercial		Industrial	
	%	t	%	t
Recycled	33	167,428	38	291,666
Reused	5	25,368	6	46,053
Treated	12	60,883	13	99,781
Landfilled	50	253,679	43	330,043

Note: tonnages calculated using the proportions set out in the RSS and referred to in paragraph 5.65 above

- 5.73 From this table it can be seen that the predominant management method is landfill, with just under 600,000t of C&I waste deposited within landfill sites.

FUTURE WASTE ARISING

RWS

- 5.74 From Appendix 5 of the RWS, the percentages of the regional total are provided for each sub-region.
- 5.75 Table 5-6 below summarises the arisings at 2010, 2015 and 2020

Table 5-6
Future Waste Arisings (Leicestershire, Leicester and Rutland)

Year	MSW (000t)	C&I (000t)
2009/2010	613	1505
2014/2015	667	1495
2019/2020	667	1457

5.76 As noted above, the RWS at Appendix 4 sets out a forecast of waste growth for all waste streams, based on the growth scenario presented in Table 5-2 above. It is noted that if the totals for C&I waste from Appendix 4 are used, the amounts of waste to be managed are higher. For 2010, 2015 and 2020 the figures for Leicestershire, Leicester and Rutland are 1,907,000t, 1,874,000t and 1,813,000t respectively.

Waste Needs Assessment Report (2008)

MSW

5.77 Tables 4.2 and 4.3 in the Waste Needs Assessment indicate that the amount of MSW to be managed in 2010, 2015 and 2020 is as follows:

**Table 5-7
Projected Municipal Waste Arisings**

Year	MSW	
	Framework	Leicestershire
2009/2010	582,350	425,150
2014/2015	633,650	462,550
2019/2020	633,650	462,550

5.78 To deduce the figures for Leicestershire, the Waste Needs Assessment, as noted above, assumes that 73% of waste is generated within the ‘county’ area based on figures for 2003/04.

C&I

5.79 In relation to C&I waste the report indicates that C&I waste arisings for the framework area will be 1,429,750t, 1,420,250t and 1,384,150t for 2010, 2015 and 2020 respectively.

Outline Business Case – Waste PFI

5.80 As part of the procurement process for a long term residual waste contract (see below) Leicestershire County Council has produced a document to assist bidders¹⁰. Included within the document at Table 2 is a summary of MSW growth from 2007/08 to 2038/39, with a detailed breakdown provided in Table 9. Table 5-8 below summarises the data at the key dates of 2010, 2015, 2020.

¹⁰ Leicestershire Waste PFI. Outline Business Case. 2008
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**Table 5-8
Projected Municipal Waste Arisings (Leicestershire)**

Year	Total Arising	Percentage Change
2009/2010	389,346	1.2
2014/2015	407,867	0.9
2019/2020	425,867	0.9

5.81 Interestingly, these figures are lower than the predictions contained in the Waste Needs Assessment. On page 8 the document comments that the forecast is lower than the LMWMS due to a net reduction in waste arisings experienced in the last three years.

NEEDS ASSESSMENT

PFI Procurement

5.82 As noted above, Leicestershire County Council has embarked on procuring a PFI contract for the long term management of the residual MSW arisings; as noted above, this is the waste that remains after materials for recycling and composting have been removed, which is currently undertaken through kerbside collections. Referring to the “*Outline Business Case*”, the council is seeking treatment capacity for 180,000tpa of residual MSW. This therefore clearly sets out the Council’s needs for managing residual MSW.

5.83 Leicester City Council has already completed its procurement process, awarding a twenty five year contract to Biffa.

Existing Waste Management Infrastructure

5.84 As noted above, Appendix 6 of the RWS sets out the existing capacity within each sub-region at 2003. For the former county of Leicestershire, the capacity is estimated at 928,520t per annum. Table 5-9 provides information in these facilities.

**Table 5-9
Existing Waste Management Infrastructure**

Facility type	Leicestershire, Leicester City, Rutland	Percentage of total
Incineration (energy recovery)	0	0%
Other incineration (clinical & hazardous)	0	0%
Materials Recovery Facility	32,000	3%
Chemical Treatment	20	0%
Physiochemical	0	0%
Composting	66,500	7%
Physical Treatment	30,000	3%

Facility type	Leicestershire, Leicester City, Rutland	Percentage of total
Soil Screening & Concrete Crushing & Composting	379,800	41%
Wood	4,000	0%
Other (Para 11 exemptions)	296,100	32%
Other (fuel manufacture)	120,100	13%
Other (biological treatment)	0	0%
Other (not known)	0	0%
Total Treatment Capacity 2004 (excluding categories below)	928,520	
2001 landfill rate	1,199,000	

5.85 Allied to this, Table 3.3 in the Baseline Environmental Review¹¹ illustrates the quantities of waste handled by facility type for 2003/4. For ease of reference, this table is repeated in Table 5-10 below.

**Table 5-10
Quantities of Waste Handled by Facility Type within the Framework Area
2003/04**

Facility Type	Tonnes handled in 2003/04	Percentage of Total
Landfill Site	1,286,426	65%
Transfer Station	458,155	23%
Open windrow composting (licensed sites only)	27,136	1%
Civic Amenity Sites	120,385	6%
Materials Recovery Facilities	16,587	1%
Scrap Metal Merchants (few returns available)	2,345	0%
Incinerators	0	0%
Waste Storage	1,129	0%
Sewage Treatment	24,170	1%
Chemical Treatment	0	0%
Physical Treatment	55,645	3%
Exempt Facilities	Unknown	Unknown
Total	1,991,978	

5.86 Furthermore, paragraph 3.13 of the Site Allocations DPD Sustainability Report¹² indicates that existing facilities in the framework area comprise:

- Materials recovery facilities (MRFs) at Whetstone and Melton
- A mechanical biological treatment (MBT) facility at Bursom

¹¹ Leicestershire and Leicester Waste Development Framework: Site Allocations DPD (Preferred Options). Sustainability Appraisal Report (Main Report). June 2006

¹² Sustainability Appraisal and Strategic Environmental Assessment: Sustainability Appraisal Report (Atkins, June 2006). Source http://www.leics.gov.uk/wdf_sa_sustainability.pdf

- Seven composting sites
 - An anaerobic digestion facility at Wanlip
 - Around 40 transfer stations throughout the framework area
 - 32 construction and demolition recycling sites
 - Around 40 scrap metal sites
 - 16 Recycling and Household Waste Centres
 - Landfills for non-hazardous waste at Albion, Bradgate, and Cotesbach.
 - Principal landfills for inert waste at Lockington, Hemington, Syston and Husbands Bosworth and a variety of other smaller inert landfill sites
- 5.87 From the above it can be seen that the total treatment capacity is estimated to be 928,520t in 2003. However:
- Around 41% of this capacity comprises soil screening/concrete crushing;
 - 32% comprises “other part 11 exemptions”; and
 - 13% comprising “Other Fuel manufacture”.
- 5.88 Notably, there are no incineration plants for the recovery of energy, and only one AD plant (operated by Biffa).
- 5.89 In terms of existing landfill capacity there are now two landfill sites capable of accepting non-hazardous waste. Cotesbach landfill, located within the south of the County, has an input restriction of 250,000tpa with planning permission running to 31 December 2021. New Albion landfill, located close to the Leicestershire/Derbyshire boundary, also has a restriction on inputs, being limited to 220 HGV movements per day, with the planning permission expiring at the end of 2014.
- 5.90 Planning permission has been granted by Leicestershire County Council for a non-hazardous landfill at Newhurst. Under the approved scheme for the landfill, the Newhurst void has a capacity of 6 Mm³ and would be infilled at a rate of 275,000t per annum. Should planning permission be granted for the Newhurst ERF, the planning permission for the landfill would not be implemented.
- 5.91 Finally, the latest AMR indicates that during the period 2008/9, C&I waste recycling capacity increased by 85,000t per annum. However, it is understood that around 67,500tpa of this capacity is subject to a time limited planning permission¹³ expiring within 2 years of the commencement, or 31 December 2010, whichever is the earlier.

Treatment Gap

RWS

- 5.92 As set out above, Appendix 5 to the RWS provides an indication of the treatment capacity requirements for each sub region. Appendix 6 then looks at the capacity gap between current treatment capacity and future

¹³ Planning Permission 2008/0407/01 granted to Bakers Waste
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requirements. The recycling rates used to deduce the capacity required are set out earlier in this section. Table 5-11 below summarises the data for the sub-region.

**Table 5-11
Quantities of Waste Handled by Facility Type within the Framework Area
2003/04**

Year	Recycling/ composting	Landfill Diversion	Disposal	Total
MSW				
2009/2010	184	131	298	613
2014/2015	333	152	181	667
2019/2020	333	195	139	667
C&I				
2009/2010	628		868	1505
2014/2015	624		862	1495
2019/2020	608		840	1457

2008 Waste Needs Assessment

- 5.93 A “*Waste Needs Assessment*” was originally produced in June 2006 to support the Waste Development Framework, and updated in June 2008 to reflect the publishing of more up to date information. Paragraphs 4.6 to 4.15 (with tables 4.2 to 4.10) set out the requirements for MSW, whilst paragraphs 4.16 to 4.20 address C&I waste.
- 5.94 For MSW, the assessment indicates in Table 4.10 that in 2014/15 there will be a shortfall in recovery capacity of 96,313t, increasing to 114,056t by 2019/20. In terms of residual waste, the assessment indicates that this will be 172,415t in 2014/15, decreasing to 131,545t in 2019/20. However, referring to Table 5-1 above, under LATS, not all of the residual waste can be landfilled, unless additional allowances are purchased.
- 5.95 For C&I waste there are currently no recovery targets and so consideration is given to the amount of waste needed to be recycled, which leaves a residual amount of waste to be treated. Table 4.15 indicates that within the framework area in 2014/15, the amount of residual waste would be 827,450t, decreasing to 806,550t by 2019/20.
- 5.96 The main method of managing residual waste within the framework area is currently landfill. At paragraph 4.29 the needs assessment indicates that there is an existing landfill capacity of around 700,000tpa until 2014, decreasing to 460,000tpa thereafter. Table 4.25 therefore indicates a shortfall in residual waste management capacity of 300,000tpa in 2014/15 increasing to 478,000tpa in 2019/20. However, referring to Appendix 1 of the Needs Assessment, the existing landfill capacity assumes that the void at Newhurst will come on stream in 2008, providing 220,000tpa capacity throughout the

period to 2020. In the absence of the Newhurst void therefore, the shortfalls are 520,000tpa and 698,000tpa in 2014/15 and 2019/20 respectively. This will need to be catered for by the provision of further landfill capacity, or other energy recovery facilities such as Newhurst

CONCLUSIONS

- 5.97 Consideration has been given in this section for the need for an energy recovery facility within Leicestershire. In the first instance, policy drivers at the European and national level have been examined; these provide a clear direction that biodegradable waste is to be diverted from landfill in ever increasing proportions. Moreover, the National Waste Strategy indicates that energy from waste is an essential component of a well balanced energy policy.
- 5.98 Allied to policy, fiscal measures have been introduced to encourage the diversion of waste from landfill; these include the landfill tax and Landfill Allowance Trading Scheme.
- 5.99 It is also clear that the Government's energy policy seeks to make better use of waste for the generation of electricity and heat.
- 5.100 Whilst these policy drivers are predominantly aimed at MSW, the Government has signalled that similar measures would be introduced for C&I wastes.
- 5.101 Currently, the predominant method of managing residual waste is landfill. Existing landfill capacity within the County is both limited and constrained, resulting in a large proportion of waste being exported. Even with the recycling and composting targets set at the national and local level, there will still be a considerable amount of residual waste needing to be managed. Although headline figures indicate around 900,000 tonnes of existing capacity within the County, much of this is not appropriate for managing residual MSW or C&I wastes.
- 5.102 In view of this, the adopted Core Strategy to the Waste Development Framework indicates that 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. To prevent this amount all having to go to landfill a further 5 at 250,000tpa or 18 at 50,000tpa energy/value recovery facilities would be required.
- 5.103 The proposed Newhurst ERF has a capacity of 300,000tpa, and thus can only address around one third of the projected shortfall in residual waste treatment capacity. As such, further facilities will be required in addition to Newhurst.