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SUSTAINABLE WASTE MANAGEMENT

Introduction

- 12.1 All activities generate waste, which needs to be collected, managed and disposed of in a suitable way. The volume of waste has increased due to national economic growth. The Government is eager to break the link between economic growth and waste production by improving resource efficiency. Currently the majority of this material is landfilled but increasing global concern about sustainable development means that large scale landfilling of waste is no longer suitable. Consequently, it is important to reduce the environmental burden of waste by producing less, making better use of it through better management and treatment, and with lessening reliance on landfilling.
- 12.2 The Core Strategy sets out a framework to guide waste management facilities to the most appropriate types of location. The Municipal Waste Management Strategy will guide the development of solutions and type of facilities required for the treatment of municipal waste. The Core Strategy is also supported by the Minerals and Waste DPD.

Context

National/Regional

- 12.3 Much of the higher level United Kingdom policy and guidance about waste originates from the European Union through the Framework Directive on Waste, which establishes fundamental principles for waste management - the Waste Hierarchy and the Proximity Principle. The Waste Hierarchy is a scale of preferences for waste treatment, with waste reduction as first preference followed by re-use, then recycling, recovery and disposal. The impending incorporation of the Directive into UK law may see this become a priority order. The Proximity Principle states waste management or disposal should take place as close as possible to the waste's origin. This and other European Directives have been influential in formulating waste management practices and targets.
- 12.4 Legislation is then interpreted through the National Waste Strategy 2007 and Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management, which state that the planning system is pivotal to the adequate and timely provision of the new waste management) facilities. They encourage positive planning towards delivering sustainable waste management, through the development of appropriate strategies for growth and regeneration. They also encourage the prudent use of resources and the need to provide sufficient opportunities for new facilities of the right type, in the right place and at the right time.

- 12.5 The Regional Spatial Strategy (RSS) amplifies national policy by requiring local authorities to provide a range of plans, strategies, investment decisions, programmes and facilities for sustainable waste management. Local authorities should work with businesses and regional partners, including the Environment Agency, the waste industry, Regional Development Agency, and the third sector to ensure the integration of strategies and proposals for sustainable waste management. Local authorities should also support the timely provision of a combination of infrastructure and improved waste management practices which best meet environmental, social and economic needs for their areas. The Regional Technical Advisory Body (RTAB) advises on waste planning issues and offers technical advice on the implementation and review of the RSS policies. Where necessary, and appropriate, managing waste at the nearest location may involve seeking agreement with neighbouring authorities.

Local

- 12.6 North Lincolnshire Council is the waste collection and disposal authority investing in waste management facilities and the waste planning authority, setting and implementing policies through the planning process. The Council is responsible for collecting and managing Municipal Solid Waste (MSW), mostly from households. Other waste streams, such as construction and demolition waste, commercial and industrial waste, and agricultural waste, are mainly handled by private waste management firms. Collectively, all of the above are called controlled waste.
- 12.7 The Council has prepared a Draft Municipal Waste Management Strategy (MWMS), which covers the period 2008 to 2025. It sets out how municipal waste will be managed and treated in a sustainable way. In North Lincolnshire the municipal waste stream accounts for less than 10% of all waste streams, so even with a 50% recycling rate, the volume treated will be still be quite small. The Strategy will:
- Limit the growth in municipal waste through the use of waste reduction and minimisation programmes.
 - Increase the level of recycling and composting of household waste to a minimum of 50% by 2010/11, and meet any future statutory targets set by the UK Government.
 - Treat the remaining waste in a facility located within North Lincolnshire, in order to recover energy. This will enable North Lincolnshire Council to meet the targets set by the Waste and Emissions Trading Act 2003, thereby avoiding the purchase landfill allowances from other waste authorities, or the payment of a fine to the Government, once the facility is operational.
 - Provide sufficient future landfill capacity for any municipal waste that is unsuitable for recycling or recovery.
- 12.8 The draft Strategy identifies three areas where additional waste handling and treatment capacity will be required in the short to medium term. These areas will have the capacity to handle additional recyclables, to treat residual municipal waste, and to manage similar, non-municipal waste streams arising locally.
- 12.9 The strategy recognises the opportunity to treat additional organic waste fractions at the Lower Trent Composting Plant in Flixborough. The licenced capacity is currently up to 50,000 tonnes p.a., which exceeds the organic municipal waste handled by the council. Spare capacity for horticultural and commercial feedstocks exists. However, if this site is deemed to be environmentally unsuitable, a different one will be required. For residual MSW treatment, new technology is required, possibly Advanced Thermal Treatment, but the type and location are unspecified. For landfilling of any residues, the current extensive local capacity, especially in the Ironstone Gulleys, is recognised.

Existing Provision

- 12.10 In 2006 licensed and permitted waste treatment and disposal facilities in North Lincolnshire received around 1.95 million tonnes of controlled waste, of which only 5.3% (103,000 tonnes) was MSW managed locally. Currently 49% of MSW is recycled or composted, and the remainder goes to the New Crosby landfill site in Scunthorpe. Elsewhere in the area, there are a number of other operational landfill sites. BIFFA operate a site at Roxby, which receives MSW by rail from the Greater Manchester Waste Disposal Authority. Waste Recycling Group operates the Winterton site, which receives waste from neighbouring local authorities in the Humber sub-region. A number of other disposal sites are operated by process manufacturers, such as Tata Steel, Cemex and Singleton Birch, to accommodate waste generated by their activities.
- 12.11 The majority of waste in North Lincolnshire is landfilled in redundant quarries, the legacy of aggregates and ironstone extraction for steel and associated industries. The area has an abundance of landfill capacity, with currently 14 million m³ of void space having planning permission for waste disposal.
- 12.12 Table 12.1 shows how the 1.95 million tonnes of controlled waste managed within North Lincolnshire in 2006, was treated:

Treatment Type	Tonnage
Non-hazardous landfill (Construction/Industrial waste + MSW)	1,213,200
Hazardous landfill (C&I waste)	107,500
Inert landfill (construction & demolition material)	196,300
Restricted landfill (material produced on site)	375,300
Composting (MSW)	(21,500)
Recycling (MSW)	(23,000)

- 12.13 The RSS estimates that North Lincolnshire has the following level of capacity for waste disposal:
- Landfill – 19.4 million m³ total
 - Composting – 176,000 tonnes pa
 - Recovery as energy from waste – 96,000 tonnes pa.

Future Provision

- 12.14 In 2007/8 household waste in North Lincolnshire increased by more than 2%. However, in 2008/9 an unprecedented 7% decrease was recorded. The extent to which this decrease was due to the prevailing economic climate will not be known for some time. For waste forecasting purposes, the Council has assumed no annual per capita growth in household waste, but future housing provision in the area will increase output by about 1.5% per year. If this forecasting is accurate, the area will produce around 116,000 tonnes of waste per year by 2021. If this additional waste was landfilled, it would mean that after 2011, North Lincolnshire would exceed its permitted allowances under the Waste and Emissions Trading Act 2003. Therefore it is essential that new facilities for the recycling, composting and recovery of waste are provided.

12.15 The RSS predicts that landfill will decline, so by 2021 it will account for only one quarter of final waste disposed of. The remaining 90,000 tonnes per year will require treatment, with about two thirds to be recycled. It also expects commercial and industrial waste output to grow. However, the impact of a greater proportion being recycled or recovered means capacity requirements will remain static for the next decade, at about 520,000 tonnes per year. Landfill disposal and treatment capacity requirements are also expected to be constant over the same timescale at about 170,000 tonnes and 348,000 tonnes respectively.

Approach

12.16 To provide an appropriate planning framework for sustainable waste management, treatment and recovery, the strategy identifies broad locations which could accommodate strategic facilities. It will also set out a criteria-based approach that promotes sustainable waste management in a sequential pattern, and in locations that support the proximity principle and self-sufficiency principle. These principles look at the convenience of proposed facilities for the public, businesses, and other land uses, and will evaluate what facilities can be realistically provided. These criteria will assist in the identification of other sites for waste facilities and will be used to assist in determining proposals for new facilities.

12.17 The identification of broad locations for waste facilities relates directly to the following:

- where the majority of the population live and work now and where the majority of new housing and employment development will be proposed in the future;
- locations where suitable technologies already exist that can be utilised and/or adapted for waste processing.
- locations where the treatment of waste by particular technologies produces marketable goods and the users of such goods are in close proximity.

12.18 As part of the overall development strategy for the area, Scunthorpe and the South Humber Bank Employment site are identified as strategic locations for development which will see increases in the population and employment. In using the proximity principle in seeking to provide future waste facilities close to areas that will continue to create waste, Scunthorpe and the South Humber Bank employment area are therefore identified as broad locations for future waste facilities.

12.19 It is also recognised that there are existing industrial users that have processes that can be used or adapted for waste management purposes and as such it is considered logical and appropriate to include these locations as broad locations. These locations are at Melton Ross, where planning permission was given in November 2008 for a waste facility, Flixborough Industrial Estate, where there is an existing composting waste plant, power station sites and other high energy usage installations, including for example Keadby Power Station, where there is a significant opportunity for extra electricity generation, and South Ferriby, where solid recovered fuel (SRF) is already used in a cement manufacturing process.

12.20 Advances in organic waste treatment technologies have resulted in products for a particular sector e.g. compost and liquid fertilizer for agriculture from a combined dry and wet anaerobic digestion process. These treatment facilities are best located close to the markets they supply.

12.21 In line with the RSS, a priority order for the identification of sites and facilities based on a sequential approach will be set out.

- 12.22 In support of the draft MWMS no new waste landfill sites will be provided because of the existence of a very high surplus of void space capacity, the unsuitability of final disposal of untreated waste, and the presence of environmental constraints, sometimes high, at abandoned quarry sites. The Core Strategy recognises the need to safeguard existing facilities for recycling, reuse, storage, transfer and processing waste. Extra locations for waste management, though not for landfill, will be needed.
- 12.23 It is now a statutory requirement for developers proposing major schemes to submit a Site Waste Management Plan (SWMP), detailing how much waste they expect to be produced and how it will be managed. Monitoring this output will help to identify how waste can be reduced. Since construction/demolition waste is the largest waste stream by volume, extra management of the erection and removal of buildings is worthwhile, and several waste treatments are possible on the same site simultaneously. The re-use, recycling, composting or recovery of waste must take precedence over landfill, in the waste hierarchy.
- 12.24 Waste management facilities have some impact on their surroundings, so mitigation and compensatory works need consideration. Finally, with numerous waste management technologies available, all-round suitability of their location is especially important, possibly with two or more processes integrated. The Core Strategy recognises that new technologies for waste management will be driven by commercial considerations.
- 12.25 The Minerals and Waste DPD will provide a framework for development management policies on waste to help guide the processing of planning applications. The DPD will set out locations and provide policies for future site-specific treatment facilities in North Lincolnshire. It will identify specific sites within the broad locations close to where the majority of the population live and work for larger strategic facilities to process controlled waste and provide a planning policy framework for smaller sites. The DPD will also cover access, design, landscaping, water source protection, alleviation of flood risk, restoration, and aftercare for waste treatment sites. Criteria-based policies will also be included to encourage waste minimisation and control different types of waste management.
- 12.26 Whilst much of this section is devoted to the management and treatment of waste, it is also a resource which can be used. The use of waste as a fuel to generate heat and power is a key component of the National Waste Strategy 2007. It can clearly be viewed as a form of renewable energy, and as such will have a role to play in helping to reduce carbon dioxide emissions and the effects of climate change. For example this could be done via thermal treatments or combustion or use of landfill gas. Research commissioned by the Waste Regional Advisory Group (WRAG), on behalf of the Regional Development Agency (Yorkshire Forward), identified key installations within North Lincolnshire where energy demand is high, and where the use of Solid Recovered Fuel (SRF) may be appropriate. These installations include existing power stations. Waste reception and treatment facilities may therefore be required on these sites. Planning permission was given in November 2008 for the development of Advanced Thermal Waste Treatment technology at an existing high energy usage industrial process operation. North Lincolnshire is aiming to develop a green economy and potential become a renewable energy hub. The use of waste as a renewable resource could contribute to this.

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The Council will consider new and enhanced facilities for the treatment and management of waste in the following broad strategic areas:

- Scunthorpe
- South Humber Bank Employment Area
- Flixborough Industrial Estate
- Power station sites and other high energy usage installations
- Farms which will directly use organic agricultural products derived from waste treatment

In general a sequential search will be made for the location of waste management facilities from the highest to lowest preference as follows:

1. On-site management of waste where it arises at retail, industrial and commercial locations, particularly in the main urban areas (The Proximity Principle)
2. Pursuit of neighbourhood self-sufficiency, at the lowest practicable level for the waste stream concerned (The Self-Sufficiency Principle)
3. Encouraging co-location of waste facilities - at Materials or Resource Recovery Parks for example
4. Locations at existing mineral extraction and waste landfill sites
5. Locations at established and proposed industrial and business sites
6. Locations in redundant farm buildings and associated land
7. Use of other previously-developed land.

The Council will promote sustainable waste management by:

- Requiring Site Waste Management Plans for future major developments to minimise waste
- Requiring the integration of facilities for waste minimisation, re-use, recycling and composting, in association with the planning, construction and occupation of new development.
- Providing guidance on minimising potential social, environmental and economic impacts that are likely to arise in the development of waste infrastructure
- Establishing a planning policy framework that identifies suitable locations for waste management.

12.27 The policy will be implemented via consideration of planning applications and pre-application advice to applicants, and if planning permission is given, by conditions or if appropriate, a Section 106 Agreement or Community Infrastructure Levy. These measures involve scrutiny of all proposed developments that have the potential to generate waste. Since North Lincolnshire Council deals with municipal solid waste, and has prepared a Draft Municipal Waste Management Strategy, information and awareness for developers and the general public on the need to reduce, reuse and manage waste, can be emphasised.

12.28 The Minerals and Waste DPD will refine the Core Strategy waste policy further. This will be prepared as the two topics are closely inter-related in function and current operational location. Operational quarries generate spoil, which can be progressively backfilled, or the redundant parts of quarries may be suitable for other waste treatment/disposal. Waste presence in North Lincolnshire is quite significant in volume, with the area being a net importer. As such a separate DPD is required.

Monitoring

12.29 The following indicators and targets will be used to monitor the implementation and effectiveness of the policies contained in this chapter:

Indicator	Target
Proportion of household waste recycled or composted	Increase the level of household waste recycled or composted to at least 40% by 2010; 45% by 2015; and 50% by 2020.
Recovery of Municipal Waste	Increase the level of municipal waste recovered to 53% by 2010; 67% by 2015; and 75% by 2020.
Landfill Diversion	Provide a surplus under the Landfill Allowance Trading Scheme (LATS)

Key Documents

- Minerals Planning Guidance (MPG) 7: Reclamation of Mineral Workings (DOE, 1989)
- Planning Policy Statement (PPS) 1: Delivering Sustainable Development, Supplement – Planning and Climate Change (DCLG, 2007)
- Planning Policy Statement (PPS) 10: Planning for Sustainable Waste Management (ODPM, 2005)
- Planning for Sustainable Waste Management - A Companion Guide to PPS 10 (DCLG, 2006)
- Planning Policy Statement (PPS) 23: Planning and Pollution Control (ODPM, 2006)
- The Yorkshire & Humber Plan – Regional Spatial Strategy to 2026 (GOYH, 2008)
- Draft Municipal Waste Strategy (NLC, 2007)

Link to Key Objectives

Spatial Objectives:

6, 7, 10

SA Objectives:

SA9; SA11; SA12; SA13; SA15; SA18; SA19; SA20; SA22; SA27