Leeds
CITY COUNCIL

Natural Resources & Waste

Leeds Local Development Framework

Development Plan Document
Issues and Alternative Options
December 2007

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1 INTRODUCTION

WHAT IS A LOCAL DEVELOPMENT FRAMEWORK?

1.1 Recently there have been major changes to the planning system, brought about by the Planning and Compulsory Purchase Act (2004). In Leeds this means that the Unitary Development Plan (UDP) will gradually be replaced by a Local Development Framework (LDF). The LDF will set out policies and proposals to guide development in Leeds and will assist in the delivery of the City's Community Strategy, 'The Vision for Leeds'.

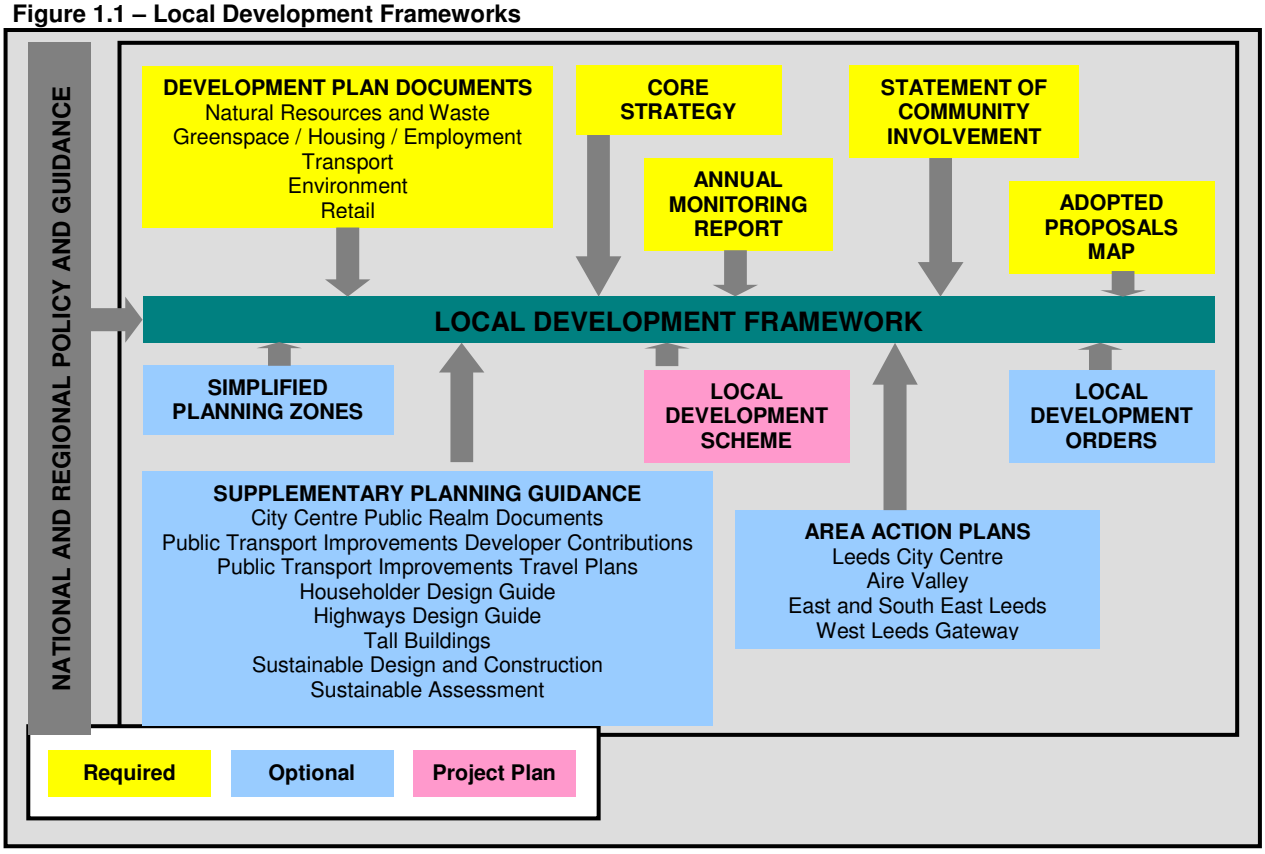
1.2 As part of the local planning context, the City Council's UDP, which was adopted in August 2001, was followed by a selective UDP review (adopted in July 2006). Under the LDF transitional arrangements, policies in the UDP are 'saved' for an initial period of 3 years or until they are replaced by LDF policies and documents.

1.3 The LDF must also take account of national Planning Policy Statements (PPS), legislation and regulations, as well as regional and local strategies and plans, such as the Regional Spatial Strategy (RSS) for Yorkshire and Humber and the West Yorkshire Local Transport Plan 2. The LDF as shown in Figure 1.1 below will contain a number of documents, which can be revised and updated individually. This approach is intended to allow greater flexibility for local authorities in responding to changing circumstances. The LDF consists of two types of documents,

- **Development Plan Documents (DPDs)** – These are documents which local authorities are required to prepare and are subject to rigorous procedures of community involvement, consultation and Independent Examination. DPDs include the Core Strategy, site specific allocations of land, the Proposals Map and, where appropriate, Area Action Plans (AAP).

- **Supplementary Planning Documents (SPDs)** – SPDs are intended to elaborate upon the policy and proposals in DPDs. They deal with specific issues affecting the whole city and are not subject to Independent Examination.

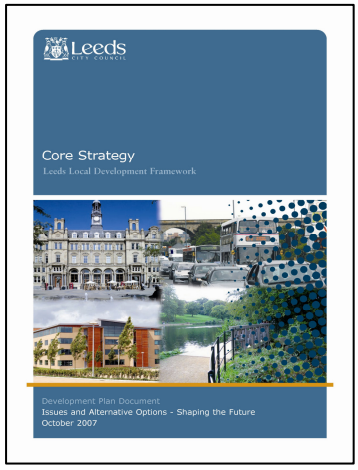
Figure 1.1 – Local Development Frameworks



1.4 This Natural Resources and Waste Development Plan Document (NRWDPD) will review, in the light of the appraisal of natural resource requirements, which existing policies are required to be reviewed and replaced and which new issues and options require to be addressed.

Relationship to other Local Development Documents

1.5 The Council is in the process of preparing its Core Strategy, which provides the overall strategic aims, objectives and policy of the LDF. It sets out the vision for the future of Leeds over the next two decades. Consultation on Issues and Alternative Options for the Core Strategy was undertaken between 23 October and 4 December 2007. Work to identify preferred options is now underway.



1.6 Within this context, the Core Strategy Issues and Alternative Options include reference to natural resources and related issues. The Core Strategy will provide strategic policies to drive forward the overall vision for the future of Leeds. For natural resources and the environment, options for policies include:

- Policies to adapt and mitigate against climate change, including lowering carbon emissions in development, and managing flood risk;
- Maintaining and improving green infrastructure; and
- Minimising waste, and providing facilities for management, re-use and recycling.

1.7 In addition, LDDs also include SPDs, which unlike DPDs, do not form part of the statutory development plan, but support individual policies. The Council as indicated above in Figure 1.1 has prepared SPDs on a variety of topics, which will add to and complement the policies in the NRWDPD. The SPD 'Sustainable Design and Construction' has particular relevance to natural resource management by including guidance on matters such as encouraging the use of recycled construction materials, and energy efficient design to lower carbon emissions.

THE APPROACH

What Constitutes a Natural Resource?

1.8 Natural resources are materials and energy sources that are supplied by the Earth and its forces, and are essential to sustain life. They can be described under various categories; Figure 1.2 below describes the categories used by the UK Government in its publication 'Securing the Future: The UK Government Sustainable Development Strategy' (DEFRA 2005).

1.9 Supplies of many of the Earth's natural resources are finite, i.e. they are limited, and once used can be lost forever. Examples include fossil fuels, land supply and minerals (although certain resources can also be recycled). Other resources can be renewed, however for some, (such as plants and animals), there is the potential that they can also be lost if they are exploited at a rate faster than they are renewed.

1.10 Factors that are having an unacceptable impact on the Earth's natural resources, such as excessive consumption and Climate Change are a serious global challenge. However, to effect changes and improve our long term prospects, action is required at a local level to,

- Reduce consumption of raw materials, space and biological resources,
- Ensure that renewable resources are not utilised at a rate faster than which they can be replenished,
- Re-use and recycle to lessen the need to consume primary resources, and
- Develop and improve renewable forms of energy production.

Figure 1.2 – Categories for Natural Resources

Raw materials such as minerals and biomass - minerals, such as fossil fuels, metal ores, gypsum and clay, are non-renewable because they cannot be replenished within a human timescale. In contrast, biomass is in principle renewable within the human timeframe, and includes quickly renewable resources, like agricultural crops and slowly renewable resources like timber. However, both of these can be pushed beyond their limits of recovery if over-exploited.

Environmental media such as air, water and soil - these resources sustain life and support biological resources on which we depend.

Flow resources such as wind, geothermal, tidal and solar energy - these resources cannot be depleted, but require other resources to exploit them. For example, energy, materials and space are needed to build wind turbines or solar cells.

Space is required to produce or sustain all the above - space provides land for our cities and towns, infrastructure, industry and agriculture. It is also required by wildlife, rivers and natural processes for them to function healthily.

Biological resources include species and genetic information - plants, animals and other organisms maintain the life-sustaining systems of the earth. Their variability (biodiversity) is also a resource and includes the diversity within species, between species and of ecosystems.

Source - Securing the Future: The UK Government Sustainable Development Strategy (DEFRA 2005)

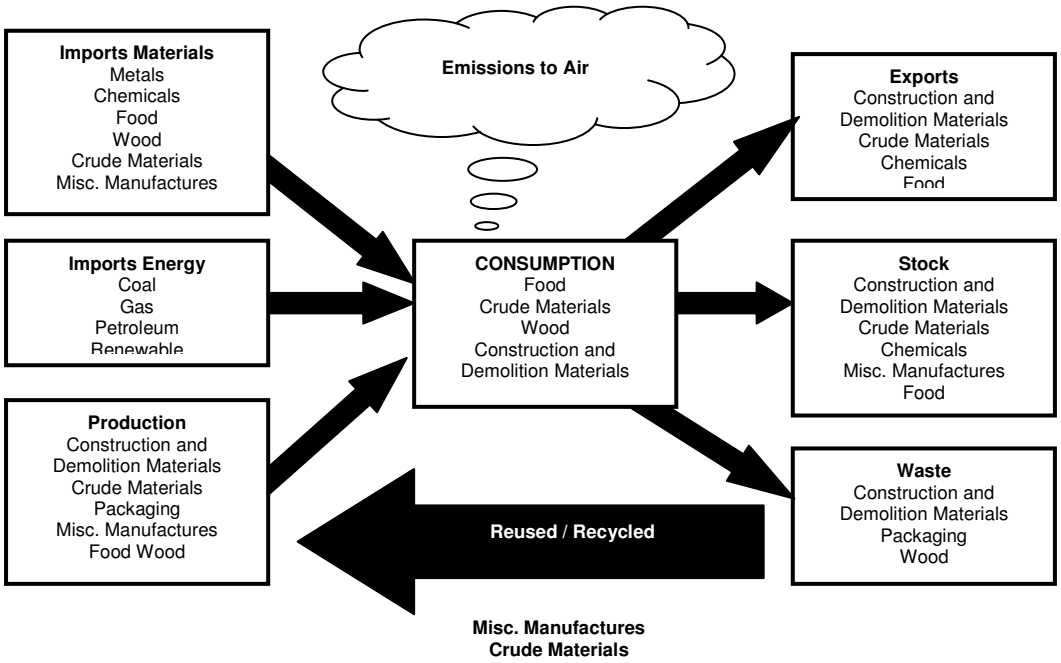
Natural Resource Flow Analysis and Ecological Footprint

1.11 To inform the preparation of the NRWDPD, a Natural Resource Flow Analysis (NRFA) is being undertaken. NRFA is a new but recognised and valued tool for managing the natural resources within an area, as well as comparing how these resources are managed in a particular area compared to national and other comparable regional areas. The scope of the NRFA is outlined in further detail in Appendix 1.

1.12 A diagrammatic representation of an NRFA is shown in Figure 1.3 below. The process estimates the movement of resources through an area, how they are used / reused and the outputs in terms of exports, emissions to water and air as well as any solid waste produced.

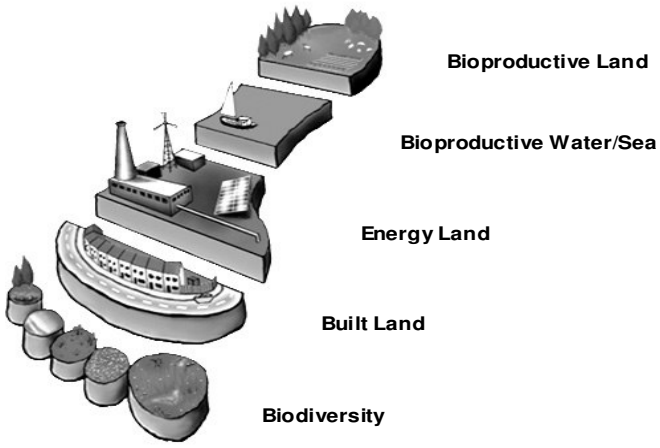
1.13 An NRFA aims to quantify the flow of resources in terms of mass within a defined geographical area over a set period of time. The role of an NRFA is to explore how resources are used within a given area, and the findings can be used to compare the efficiency of a resource usage within an area against the efficiency of the same resource use within other areas and against government targets. It is therefore a potentially powerful tool for generating issue and policy options for more efficient and therefore sustainable resource management.

Figure 1.3 – Natural Resource Flow Diagram



1.14 The scope of the NRFA also extends beyond the remit of informing the preparation of the NRWDPD and will also be used to estimate an Ecological Footprint (EF) for Leeds and provide a wider picture of performance of the area in terms of its sustainability. EF analysis calculates an index of sustainability and resource use by representing the consumption of resources and the associated environmental impacts as a common unit of geographical area, the global hectare (one global hectare is equivalent to one hectare of biologically productive space).

Figure 1.4 – Representation of an Ecological Footprint by Land Area



1.15 The land areas associated with the use of each resource are then aggregated to give an 'EF' which represents the area of land required to provide the resources and mitigate the potential negative impacts on the environment.

1.16 Comparing the EF with the actual area available to an individual, region, country, or the entire planet, gives an indication of sustainability: if more productive land and sea is needed than is actually available, then consumption is not sustainable. Comparing the size of a footprint over time helps to measure the effectiveness of policies on improving sustainability. EFs provide an accessible, easily understood way of assessing sustainability and are a valuable tool in engaging what can at times be an abstract concept.

Why Prepare a DPD on Natural Resources and Waste?

1.17 A key requirement of the LDF is to plan for sustainable development. In practice this means planning for and delivering environment, economic and social objectives at the same time. Within this context natural resources such as land, water, air, minerals, fossil fuels, and plants as detailed within Figure 1.2 above are all essential to sustain living and economic conditions ('inputs'). However these resources are limited. Whilst some resources can be renewed during life cycles (e.g. plants), others are finite resources which if fully used, will be lost forever (e.g. minerals).

1.18 Consumption of our natural resources also leads to by-products or 'outputs' which, if not properly managed, can lead to unacceptable burdens on the natural environment. These include, in particular, commercial and domestic waste arisings, contamination and pollution, and energy loss. Climate change has been a major consequence arising from resource consumption, which in turn continues to affect our existing environment and the availability of good quality natural resources.

1.19 It is important that the City of Leeds is able to manage its natural resources in a sustainable manner, whilst still enabling economic and community growth. Given the scale of the City however, this is not a simple task and there are complex issues to be addressed to ensure that there is a coherent strategy to meet local needs and aspirations, but which also fulfils international, national and regional obligations.

1.20 The NRWDPD will explain the key issues affecting Leeds' natural resources. It will provide a policy framework and guidance on themes relevant to the whole of the Leeds City Council area for the future management of existing natural resources, for example improving air and water quality. It will also provide detailed spatial policies identifying:

- Locations where particular types of development relating to natural resource management will be promoted or allowed, e.g. waste management facilities and renewable energy opportunities; and
- Locations where existing natural resources require to be protected from development, e.g. mineral resources.

1.21 The NRWDPD will provide more detailed policies, and shall conform to the strategic policies in the Core Strategy. The Council will be preparing as shown in Figure 1.1 above other thematic DPDs with detailed policies on the Environment, Greenspace / Housing / Employment, Transport, and Retail. Each of these DPDs will contain policies that impact on or have relevance to natural resources. It is important to ensure that these DPDs provide an integrated set of policies, but do not duplicate each other. This Issues and Alternative Options Paper has therefore been written taking into account those resource issues that will be the subject of separate and specific DPDs. Therefore, the Council intends that this DPD will concentrate on issues that are of primary importance to Leeds for natural resource management. There will be other themes that, whilst natural resource related, have more relevance in other DPDs proposed, for example nature conservation management in the Environment DPD, and green space requirements in the Greenspace / Housing / Employment DPD. Views on the most appropriate content for this NRWDPD are welcomed.

1.22 This NRWDPD is being informed by a number of different ongoing studies, most notably a NRFA as outlined above. The method and outcomes of an NRFA are provided within a background report as Appendix 1 to this Report. This background report contains detailed information on the scope of the NRFA and other background research.

1.23 Recognising the importance of natural resources and the complexity of demands and challenges in their management, the Council has decided that in addition to its statutory requirement to produce a DPD on minerals and waste it is appropriate to prepare a DPD, which identifies and provides guidance on the key natural resource and consumption and waste issues for Leeds, hence the Natural Resources and Waste DPD. Leeds City Council using the NRFA and EF, is one of the first Authorities in England to consider the production of an NRWDPD, thus widening the statutory minerals and waste DPD to incorporate natural resource themes such as energy and climate change, land use, water resources and air quality.

1.24 It will also be appropriate within the NRWDPD to consider a 'bottom-up' approach to policy. In this regard where issues and options arise that may question current national and regional policy frameworks these matters will be examined through the NRWDPD and appropriate recommendations made to the respective national and regional bodies.

1.25 Background to each of the themes is explained. Issues that the Council considers to be relevant for inclusion in this NRWDPD for each theme are referred to, with possible options suggested. Please note that not all of the options are mutually exclusive; for some issues there is more than one possible answer. In addition, for some issues a ranking of the preference of options is requested.

1.26 Against the background of Securing the Future: The UK Government Sustainable Development Strategy and the categories of natural resources as indicated within Figure 1.2 above a detailed review of international, national, regional and local policy guidance and targets has been undertaken. Within this context the objectives for the NRWDPD have been derived, thus enabling each of the key themes to be identified. The objectives for each of the key themes are set out within Figure 1.5 below. These themes present both major challenges and opportunities for both Leeds City and the surrounding District.

Figure 1.5 - Key Themes – Objectives for the NRWDPD

Waste

- Policies should ensure that adequate sites and facilities are available to manage the quantities of municipal, commercial and industrial, construction and demolition, agricultural, and hazardous waste.
- Policies should ensure that waste is managed on the site where it arises, or at the nearest appropriate location.
- Policies should ensure that facilities are located in accordance with the Core Approach and the proposed distribution of housing and economic growth.
- Policies should seek to redress the concentration of existing and prospective landfill operations in South Leeds.

Minerals and Aggregates

- Policies should safeguard mineral deposits from sterilisation and provide for an adequate and steady supply of minerals,
- Polices should maximise the use of secondary and recycled aggregates, and where this is not possible, undertake primary extraction as needed.
- Policies should make provision for the sub regional apportionments and maintain landbanks for all nationally and regionally significant minerals.

Energy and Climate Change

- Policies should support renewable and low carbon energy, identify potential for renewable energy in the Leeds area and allocate and safeguard potential sites.
- Policies should identify potential for microgeneration equipment on homes and businesses in Leeds.
- Policies should identify potential for energy from waste sites, possible locations and safeguard potential sites.

Land Use

- Policy should identify drainage capacity and associated flood risk alongside creating new development opportunity.
- Policy should encourage the active increase of the woodland resource for both biodiversity reasons and to assist in reducing flood risk.
- Policy should include locational policies for new development to encourage use of more energy efficient transport.
- The re-use of contaminated land should be encouraged to minimise the use of the land-resource.
- Policy should protect the greenbelt and greenfield land.
- The use of brownfield land should continue to be encouraged.

Water Resources

- Policies should encourage water efficient development, sustainable urban drainage systems, grey water recycling, rainwater schemes and attenuation of surface water drainage.
- Policies should ensure development does not affect the quality of rivers and catchment areas.
- Policies should properly screen for pollution and adverse water quality implications in potential development areas.

Air Quality

- Policies should promote the potential for new fuel technology and associated refuelling infrastructure.
- Policies should ensure that potentially polluting development be situated in appropriate locations.
- Policies should aim to minimise carbon emissions through locational transport infrastructure policies, the facilitation of rail and waterways for transportation and encouraging alternative to cars and lorries.

1.27 The themes identified above and within Issue 1 (Key Themes) below are not necessarily exhaustive and comments are welcomed through the consultation exercise on this Issues and Alternative Options Report as to other themes which may be required to be incorporated. The comments received through consultation would then feed into the identification of 'preferred options'. Consultation and gathering as much information as possible early in the process are key elements in producing a DPD. **Therefore, the Council is keen to receive views on whether you agree that the key themes identified within this Issues and Alternative Options report are of priority for Leeds, or whether there are more themes that should be included**.

ISSUE 1 – KEY THEMES **Do you agree with the inclusion of the following as key themes for this Natural Resources and Waste DPD?**		**Yes**	**No**
A	**Waste**		
B	**Minerals & Aggregates**		
C	**Energy & Climate Change**		
D	**Land-Use**		
E	**Water Resources**		
F	**Air Quality**		

Are there any further key themes that you think should also be included?
If so please provide your comments below

INTEGRATION

1.28 There are important relationships between each of the key themes, and in particular each affects the way in which we use our land resource.

1.29 It is important to remember that the way in which you answer one question may have an impact on other issues and options in this paper. Some examples of ways in which the themes relate to one another are explained in the table below.

1.30 Following the chapters on each of the key themes, some issues and options related to integration are presented.

Table 1A – Examples of Inter-Relationships between Key Themes

	WASTE	MINERALS AND AGGREGATES	ENERGY AND CLIMATE CHANGE	LAND USE	WATER RESOURCES	AIR QUALITY
WASTE		Minerals/aggregates contribute to waste landfill, e.g. from demolition.	Waste can be used to produce energy.	Ineffective use of land creates greater consumption needs and therefore waste.	Poorly waste can contribute to poor water quality and contamination of groundwater supplies	Reduction and reuse of waste lessens emissions affecting air quality.
MINERALS AND AGGREGATES	Mineral extraction sites can provide a location for landfill or recycling and processing of waste.		Climate change affects availability of minerals – e.g. coastal erosion.	Minerals and aggregates recycling requires less land take	Some minerals are marine based – can be depleted affecting marine biodiversity	Mineral extraction can lead to increases in the level of atmospheric dust and reduce local air quality
ENERGY AND CLIMATE CHANGE	Methane is produced from waste – greenhouse gas.	Fossil fuel energy production contributes to climate change.		Land used for renewable energy, e.g. wind turbines, geothermal.	Water resources can provide renewable energy.	Increased Carbon emissions is directly related to the effects of climate change
LAND USE	Waste that is not re-used must be stored - landfill area requirements	Minerals extracted from land – more requirement = more land required.	The effects of climate change will influence the availability and type of land for development		Development of land inhibited by water resources – areas of flood risk.	Biodiversity land uses and green spaces help improve air quality.
WATER RESOURCES	Waste pollutants affect water quality	Mineral sites can increase the sediment level in water resources upsetting the aquatic ecosystem	Climate change causes flooding – drainage issues, water quality.	Development on land adjacent to water resources can affect quality.		Particle emissions in air can be deposited into water resources causing damage to aquatic ecosystems
AIR QUALITY	Methane gas from landfill pollutes air. Emissions from transporting waste.	Emissions from transporting minerals pollute air.	Pollutants from energy production affect air quality.	The use and development of land affects air quality – e.g. industrial and transport emissions.	Particle emissions in air can be deposited into water resources causing damage to aquatic ecosystems	

Strategic Environmental Assessment and Sustainability Appraisal

1.31 The objective of the EU Directive on Strategic Environmental Assessment (SEA) is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development.' Regulations 3(2), 5(2)a and 12 of the Strategic Environmental Assessment (SEA) Regulations (2004) requires a plan or programme prepared in connection with waste management to undergo SEA, and for the responsible authority to commission a report on the likely significant effects of implementing it.

1.32 Paragraph 19(5) of the Planning and Compulsory Purchase Act (2004) requires the responsible authority to also undertake a sustainability appraisal and to prepare a report on the results. Sustainability has been described as 'development which meets the needs of the present without compromising the ability of future generations to meet their own needs'.

1.33 Sustainability Appraisal (SA) is a process that assesses the environmental, social and economic consequences of a programme or plan and its policies. It seeks to identify ways of achieving a sustainable balance between these considerations. The main purpose of appraisal is to ensure that the full ranges of effects of the strategies and policies which have influence on the particular area under review are considered from the outset of the preparation process.

1.34 The UK Government Sustainable Development Strategy: Securing for the Future; delivering the UK sustainable development strategy (Defra, March 2005) requires that Regional Planning bodies, in conjunction with all public bodies, should seek to support sustainable development with particular attention being given to four priority areas identified for immediate action and long term improvement that are outlined within the document. The four key areas of action are:

- Sustainable Consumption and Production,
- Climate Change and Energy,
- Natural Resource Protection and Environmental Enhancement, and
- Sustainable Communities.

1.35 Methodological guidance issued by ODPM (now DCLG) in November 2005 provides for a single assessment combining these requirements and which also complies with those of the EU Directive on SEA (2001).

1.36 In terms of quality of life and 'place making', addressing sustainable development issues now and in the future is of fundamental importance to Leeds City Council. Consequently integrating environmental, economic and social issues at every step, as part of the short and longer term development of the City is therefore essential across a range of strategies and initiatives including the LDF. The solutions to such issues are wide ranging and complex, entailing the need not only for specific planning policies but complementary and consistent actions from stakeholders and individuals to make the necessary changes. The NRWDPD like all LDF documents is subject to an SA, which will run in tandem to the process of DPD preparation. The SA will examine the DPD against a number of different criteria to assess its contribution to the achievement of sustainable development.

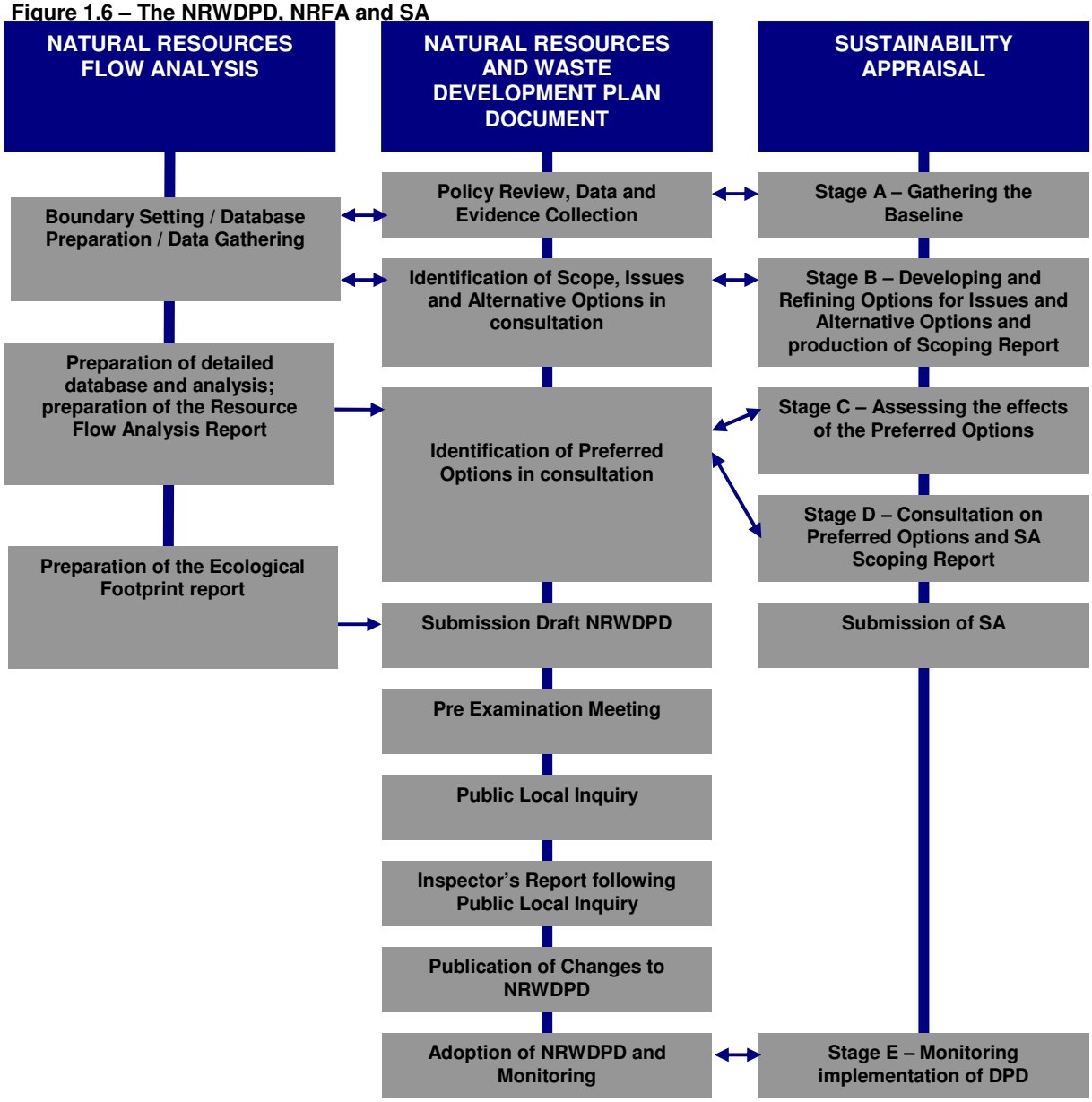
1.37 The NRWDPD SA Scoping Report is available upon request or at www.leeds.gov.uk/EnvironmentandPlanning/Localdevelopmentframework.aspx. This should be read in conjunction with this NRWDPD Issues and Alternative Options report to help understand the impact that the different issues and options may have on sustainability.

How do the NRWDPD, NRFA and Sustainability Appraisal fit together?

1.38 As detailed above the preparation of the NRWDPD is being undertaken in tandem to the process of NRFA and SA.

1.39 The NRFA has provided the evidence base and rationale for the scope of the NRWDPD, whilst the issues and options identified have been subject to SA to assess the impact upon achieving sustainable development targets and indicators. The relationship between the NRWDPD, NRFA and SA is indicated in Figure 1.6 below.

Figure 1.6 – The NRWDPD, NRFA and SA



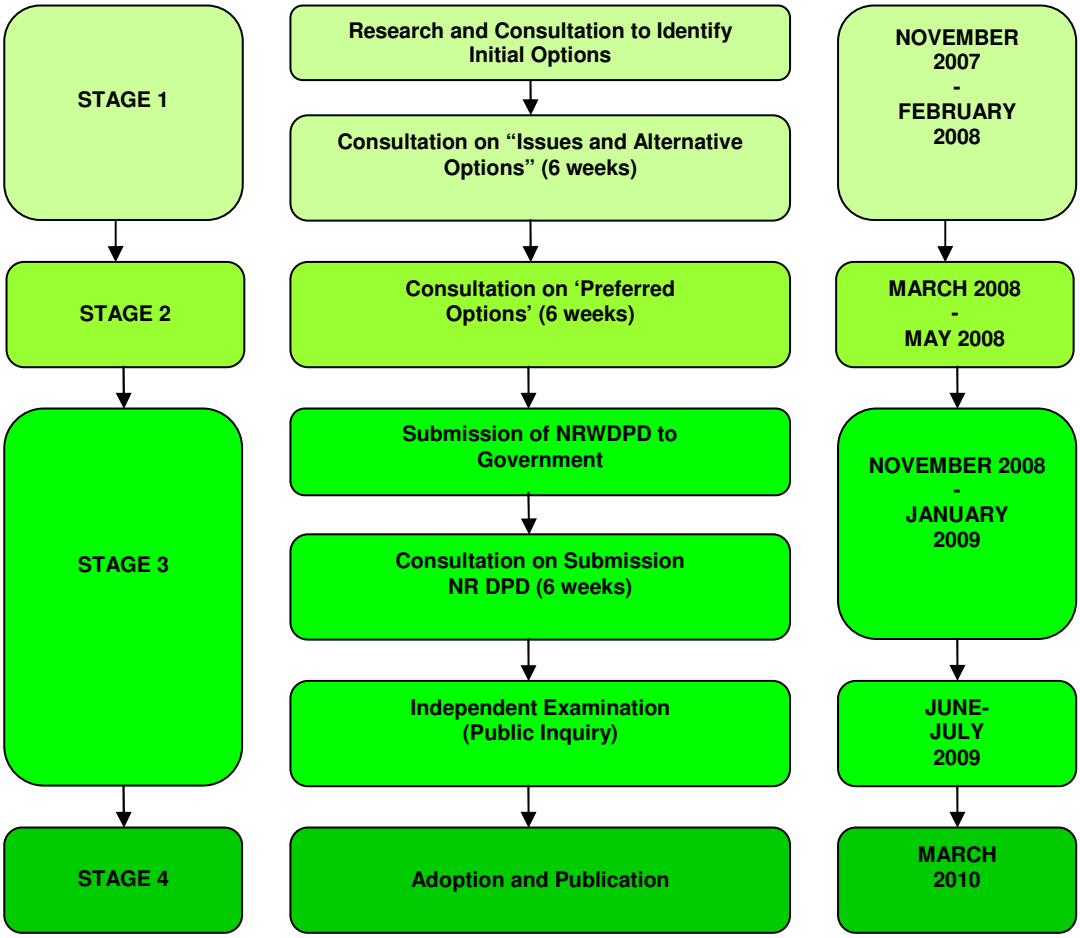
TIMETABLE

1.40 The preparation of the Natural Resources DPD is divided into 4 broad stages. These are described below. **Stage 1** is to identify issues and develop initial options for discussion and to undertake further wider public consultation to develop and choose the options. The preparation of this Issues and Alternative Options report forms part of Stage 1. The comments received in Stage 1 will inform the preparation of 'Preferred Options' which will then be subject to more consultation in **Stage 2**. At **Stage 3** the Draft NRWDPD will then be published for submission to the Planning Inspectorate.

1.41 Everyone will have the opportunity to formally comment and have your views considered by an independent Government appointed Inspector, who will then make recommendations that the Council will be required to adopt. It is envisaged that the NRWDPD will be adopted as a formal plan by March 2010 forming **Stage 4**.

1.42 A timetable for the preparation of the NRWDPD is shown in Figure 1.7 below.

Figure 1.7 - NRWDPD Timetable



STRUCTURE OF THIS REPORT

1.43 The structure of this Issues and Alternative Options Report is as follows,

- **Introduction** – Chapter 1 sets out the background and approach to the preparation of the NRWDPD, outlining the process of the NRFA, which is being undertaken as a tool for informing the DPD making process.
- **Key Themes** – Chapters 2 – 7 set out the context of each of the key themes and detail the issues and options identified for each (waste, minerals and aggregates, energy and climate change, land use, water resources and air quality)
- **Integration** – Chapter 8 outlines how each of the key themes may be inter-related.
- **Monitoring** – Chapter 9 sets out the process for monitoring and review of the NRWDPD

- **NRFA** – A Scoping Report on the methodology and process for undertaking the NRFA is set out as Appendix 1 and Annex 1.

- **Policy Review** – The detailed policy review which was undertaken as part of the evidence gathering stage for the Issues and Alternative Options report is set out as Appendix 2 and Annex 2.

- **Technical Reports and Background** – Appendices, 3, 4 and 6 set out the background technical report to the minerals and waste chapters, the boundaries of the air quality management areas within Leeds

- **Issues and Options** – A summary version of the Issues and Options is provided within Appendix 5. This should be used for the purposes of providing consultation responses.

2 WASTE – ISSUES AND ALTERNATIVE OPTIONS

2.1 Waste is of significant importance to the effective management of natural resources. As a society, we produce more waste than ever before and historically most of this waste has been disposed in landfill sites. Economic growth and the growing levels of consumer consumption associated with that growth has led to year on year growth of waste. This 'natural' growth pattern has been exacerbated by unsustainable waste disposal practices. In addition to depleting our resources, disposing of our waste to landfill affects the quality of our environment as biodegradable waste (i.e. waste which rots) has the ability to produce gases that contribute to climate change and liquids that can pollute our ground waters.

2.2 In order to address the unsustainable pattern of growth, and an historically poor performance in relation to the management and disposal of waste which has developed over time, the European Union and the UK Government have provided a framework and set targets to limit waste production and to ensure waste is dealt with as a sustainable resource.

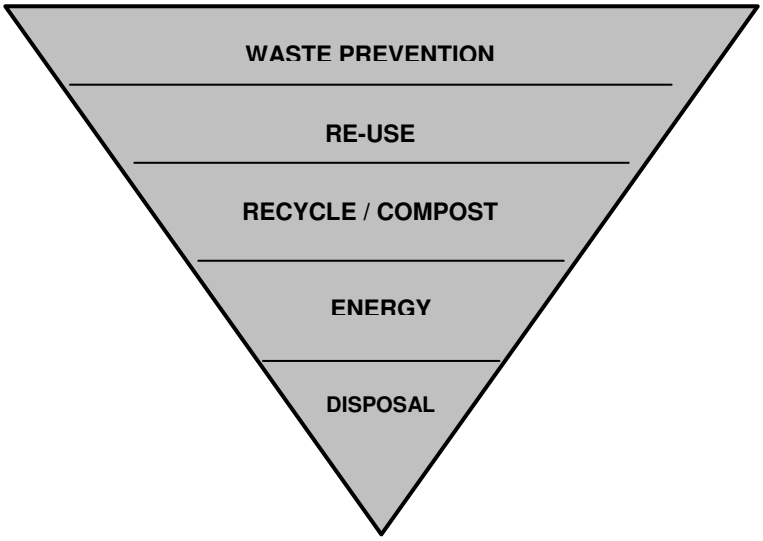
2.3 The purpose of these targets is to minimise and reduce landfilling and to increase recycling and recovery so that we can obtain value from our waste and use it as a resource. The Council must have regard to these matters as the key drivers, together with the need for self sufficiency and to ensure that waste is managed and disposed of as near to its source as possible, without danger to human health and without harming the environment.

2.4 Leeds has an adopted Integrated Waste Strategy which sets out an approach to the Municipal Waste Stream, which the NRWDPD needs to reflect. The Waste Strategy has a long term aspiration to reduce waste to the point where no residual waste remains:

'*A zero waste city, whereby we reduce, re-use, recycle and recover value from all waste, waste becomes a resource and no waste is sent to landfill*'
(Integrated Waste Strategy for Leeds 2005-2035)

2.5 The NRWDPD shall also have regard to the principles of the Waste Hierarchy, which is shown in Figure 2.1 below. It must also be consistent with waste policies contained in National Planning Guidance provided by Planning Policy Statement 10 and the Regional Spatial Strategy.

Figure 2.1 - The Waste Hierarchy



2.6 Through the Core Strategy and this NRWDPD, the Council will need to broadly set out the number of waste management facilities which it will need to plan for to deal with all waste streams, in accordance with national and regional requirements. Detailed data analysis and capacity and scenario modelling to inform these issues is ongoing but the Council is in a position to outline the spatial issues and options which need to be considered and developed further through the DPD process. Ultimately, the DPD will establish where specific types of waste management facilities will be promoted or supported and criteria against which applications for such developments will be assessed.

2.7 The Council realises that there are a variety of positive opportunities arising from the generation of waste. It is intended that options for facilities will be examined through the process of preparing the NRWDPD. In addition to promoting sites specifically for waste management, the NRWDPD will address requirements for all new forms of development in relation to their waste management responsibilities. National and regional planning policy advocates the treatment of waste as close as possible to its source of production.

2.8 The NRWDPD can contain criteria based policies for assessing new development particularly in relation to re-use and recycling. Options for considering inputs to other relevant DPDs, as policy drivers in relation to this matter will also be considered e.g. new requirements on developments or developers of major proposals within the City.

2.9 The issues and alternative options identified in relation to the key theme of waste are detailed below.

ISSUE 2 – PLANNING FOR FUTURE WASTE MANAGEMENT	**Yes**	**No**
Leeds is part of a wider City Region. The emerging RSS at Policies ENV12 and ENV13 are clear that authorities should consider significant transfers of waste across the regional boundary and should liaise with neighbouring authorities on establishing a pattern of waste facilities to ensure waste is managed close to its source. Therefore, the Council may need to consider opportunities within the City where it might be possible to meet more than just local needs. Which of the following options do you think are most appropriate?		
<u>Option 1</u> - Leeds should plan for managing its own waste only, or	☐	☐
<u>Option 2</u> - Leeds should work with neighbouring authorities and other regional partners to ensure a strategic approach to managing waste.	☐	☐
<u>Option 3</u> – As part of its City Region role, should Leeds be considered as a strategic location capable of serving a wider catchment?	☐	☐
Comment		

ISSUE 3 – STRATEGIC LOCATION OF NEW WASTE MANAGEMENT AND TRANSFER FACILITIES

	Yes	No
Following on from Issue 2, to provide more sustainable waste management, the emerging RSS at Policy ENV13 is also clear that the number of facilities for treatment, recycling and recovery of all waste streams may need to double by 2020. National and regional guidance favours the co-location of different waste management facilities in a single location as resource parks or on a number of sites located close together whilst also recognising that local circumstances must be considered. Sites must also meet national and regional location criteria. The Council will therefore need to consider its approach to the distribution of sites for new waste facilities. Strategic options are:		
Option 1 - Make provision for one or two accessible larger sites where major waste facilities for all waste streams can be located together?	☐	☐
Option 2 - Identify a number of alternative sites distributed around the City to provide a more extensive range of options?	☐	☐
Option 3 – New facilities should only be provided in existing industrial areas, existing landfill or waste management sites or other less sensitive locations away from residential, business parks and other uses which might be considered to be sensitive to new waste management activity.	☐	☐

Comments

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ISSUE 4 – OTHER LOCATIONAL CONSIDERATIONS

	Yes	No
There may be times where new waste management proposals are required in a certain location because this is closest to the source of waste or because the type of process requires certain sites. Sometimes this can lead to a conflict between the need to provide new facilities and policies which seek to restrict or control development in certain places. PPS 10 and the emerging RSS are both clear that a balance needs to be achieved between the need to manage waste close to its source and environmental protection. Options are:		
Option 1 – Reflect national planning guidance even in local circumstances where this might restrict certain waste management activity?	☐	☐
Option 2 – As far as possible reflect national planning guidance but seek to achieve a practical balance between environmental protection, the need to reflect local circumstances and the specific location needs of certain waste management facilities.	☐	☐

Comments

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ISSUE 5 – LANDFILL PROVISION | **Yes** | **No**

Whilst it is recognised that Leeds City aspires to 'zero waste', in the emerging RSS is clear that in the interim some additional landfill provision may also be required to provide for residual waste that cannot be re-used, recycled or recovered. Options are:

Option 1 – If possible, only identify extensions to existing landfill sites and backfilling of former minerals deposits. ☐ ☐

Option 2 – Make provision for additional locations for landfill. ☐ ☐

Option 3 – Rely on landfill provision outside Leeds. ☐ ☐

Comments

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ISSUE 6 – INCREASING AND ENCOURAGING RECYCLING | **Yes** | **No**

The City Council has recycling targets which are consistent with the National Waste Strategy. The Council operates a network of household waste sorting sites where people can bring unwanted household rubbish not collected at the kerbside and bulky items. Local bring sites also provide smaller scale recycling opportunities and are accessible to people without cars although these are not necessarily operated by the Council. To continue recycling and avoid the implications for not meeting recycling targets an increase in the number of sites will be required (Please tick all that apply). Options are:

Option 1 – The Council should continue to focus on supporting and encouraging the further development of household waste sorting sites which are strategically located to serve different parts of the City. ☐ ☐

Option 2 –Strategic household waste sorting sites should be complimented by a broader network of smaller local bring facilities which may also include a wider choice of recycling and re-use opportunities. ☐ ☐

Option 3 - The Council should also provide policies which seek to encourage all developers to provide appropriate re-use and recycling opportunities when considering development proposals including before, during and after construction. ☐ ☐

Comments

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ISSUE 7 – SAFEGUARDING WASTE SITES	**Yes**	**No**
The DPD will identify specific waste sites but this will prevent them also being made available for other similar land use activities such as industrial development. The advantage of this is that it provides more certainty for waste management activity but a disadvantage is that it may stifle investment and other opportunities. PPS10 states that waste management allocations are reviewed at least every 5 years. Options are:		
<u>Option 1</u> – Providing a 'protected' status for existing and future waste sites so that their status can only be changed through a review of the DPD, or	☐	☐
<u>Option 2</u> – A more flexible approach should be taken where the need for other uses may be acceptable.	☐	☐

Comments

3 MINERALS AND AGGREGATES – ISSUES AND ALTERNATIVE OPTIONS

3.1 Minerals and aggregates are a primary resource used for the construction of buildings and infrastructure. They are however in finite supply, and their extraction has significant environmental impacts. The Government has set out national planning policy on minerals so that Authorities can plan for their prudent and efficient use, whilst also protecting areas where environmental impacts would be particularly harmful, e.g. areas of landscape value.

3.2 The major mineral deposits found in Leeds are sandstone, sand and gravel, and coal. There are also deposits of clay and of limestone. Although there are significant reserves of sand and gravel within the District, urban growth over time has resulted in sterilisation of such resources. Leeds currently recycles 100% of used roadstone products to reduce environmental impacts associated with quarrying.

3.3 Building stone won is largely used to build and repair stone property in areas where the buildings are predominantly built in natural stone. The two clay quarries within the District each contain large factories where some 80 million facing bricks are produced each year, making Leeds effectively self-sufficient in bricks.

3.4 Total aggregate production is around 850,000 tonnes per year, which equates to around 1 tonne per year for every person resident within the district. This is much less than the estimated 4 tonnes per head accounted for by the consumption of aggregates in Leeds in the construction industry and through DIY.

3.5 The shortfall is made up by aggregates brought into Leeds by road every day from quarries in adjacent authorities and the neighbouring county of North Yorkshire.

3.6 There are proven coal deposits within the Leeds District and there is a demand for extraction by opencast methods within the District. Whilst this has potential benefits such as stimulating the local economy; reclamation of derelict land; and provision of after uses that benefit the environment and communities such as recreation and nature conservation, it also has potential to create prolonged and cumulative adverse environmental effects.

ISSUE 8 – AGGREGATE PROVISION | **Yes** | **No**

The required aggregate provision for each authority within West Yorkshire has been agreed up to 2016, but is not yet agreed up to 2021. What policy approach should Leeds take on the levels of aggregate extraction for this period? Options are:

Option 1 – A continuation of the 2001 – 2016 trends should be accepted as the basis of future aggregate provision. ☐ ☐

Option 2 – Higher levels of one or both of the figures should be considered to reduce the need for primary aggregates produced in the National Parks and AONBs of North Yorkshire in line with RSS policy. ☐ ☐

Comments

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ISSUE 9 – SAND AND GRAVEL | **Yes** | **No**

If it is necessary to quarry additional sand and gravel resources over the plan period would the sustainable provision of additional resources be best achieved by:

Option 1 – The use of extensions to existing quarries to supply the bulk of the required resources? ☐ ☐

Option 2 – The release of new sites to supply the majority of this need? ☐ ☐

Option 3 – Using existing allocations and a criteria based policy approach without identifying new sites for development? ☐ ☐

Comments

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ISSUE 10 – SAND AND GRAVEL **Guidance encourages any additional resources to be defined clearly to assist all stakeholders. Would the identification and release of additional resources be best achieved through:**	**Yes**	**No**
Option 1 – The identification of broad areas of search;	☐	☐
Option 2 – The identification of preferred areas within these search areas;	☐	☐
Option 3 – The identification of additional site allocations with detailed boundaries to be defined in the DPD;	☐	☐
Option 4 – Not identifying any preferred area or site allocations, but instead using a criteria based policy approach, which would be applicable across the whole District; or	☐	☐
Option 5 – Looking for preferred areas or site allocations outside existing resource areas?	☐	☐

Comments

ISSUE 11 – SAND AND GRAVEL **Looking at the environmental impacts of sand and gravel extraction on specific areas of the District, what policy approach is best for local areas?**	**Yes**	**No**
Option 1 – Should any of the existing resource areas have clear limits placed upon further sand and gravel extraction due to environmental and / or other impacts?	☐	☐
Option 2 – Are there other potential resource areas that can be identified for consideration?	☐	☐
Option 3 – Focus on continuing levels of extraction at present rates, having regards to regional guidelines covering sub-regional apportionment for West Yorkshire and reflecting emerging RSS policy.	☐	☐

Comments

ISSUE 12 – CRUSHED ROCK | **Yes** | **No**

Given the quality of the resource which is present within the District and the adverse environmental impacts that can arise from extraction, it has not been considered necessary to include policies relating to provision of crushed rock in previous Development Plans. Should this approach be continued?

Option 1 – No change to existing situation. ☐ ☐

Option 2 – Designate new areas as potential sites for future exploration and include criteria for future exploitation. ☐ ☐

Comments

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ISSUE 13– BUILDING STONE | **Yes** | **No**

Quarries that produce dimension stone and other building stone products have operated for many years and the resource is a valuable one. Within this context, it is unlikely that there will be many applications for new quarries, however:

Option 1 – Should the known reserves of dimension stone be subject to Mineral Consultation Area designation in order to protect the resource? ☐ ☐

Option 2 – If there is an increased demand for building stone products that cannot be met by existing quarries, should there be a preference for these to be extended? ☐ ☐

Option 3 – Or should new ones be permitted? ☐ ☐

Comments

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ISSUE 14– COAL | **Yes** | **No**

In view of national guidance on opencast coal development Leeds City Council currently applies a presumption against proposed development unless the proposal can demonstrate clear beneficial effects. Stringent criteria are applied to developments which meet the tests. In view of this should the Council,

Option 1 – Simply acknowledge the presence of the coal reserve and continue with the existing approach set out in saved policies. ☐ ☐

Option 2 – Designate identified locations as Mineral Consultation Areas and include criteria for future exploitation. ☐ ☐

Comments

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ISSUE 15 – CONCRETE BATCHING AND ASPHALT FACILITIES | **Yes** | **No**

Sites which are suitable for concrete batching, the manufacture of coated materials, asphalt, and other concrete based products are often difficult to locate within existing urban areas. They do however play a necessary part in the economy and development of the City. Whilst they do not necessarily require large areas of land, they often have an adverse impact on the surrounding environmental quality and the high buildings and hoppers for production and blending are unsightly.

National policy encourages the safeguarding of existing, planned and potential sites including any rail or water served depots and suggests that, where appropriate, new sites to meet future needs should be identified in DPDs. Should the Council:

Option 1 – Identify existing facilities and a range of additional sites which would be suitable for this or use only in the future? ☐ ☐

Option 2 – Include a safeguarding policy for existing sites, acknowledge the need for new facilities and provide a suite of criteria based policies to assess future proposals for batching plants? ☐ ☐

Option 3 - Provide policy guidance on appropriate locations such as existing mineral processing plants; industrial estate locations, shared facilities at railheads and wharves already serving similar uses. ☐ ☐

Comments

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ISSUE 16 – RECYCLED MATERIALS | **Yes** | **No**

Whilst the difficulties encountered in compiling meaningful data relating to the production of recycled aggregates is acknowledged, in view of the shortfall in meeting regional targets for recycling materials to use as aggregates, every effort should be made to encourage the establishment of appropriately sited aggregate recycling facilities, in accordance with national and regional guidance. It is envisaged that the following may provide preferred locations for aggregate recycling facilities. Please indicate those that you agree with.

Option 1 – Existing mineral sites, especially those that import construction and demolition and excavation wastes. ☐ ☐

Option 2 – Former mineral workings with suitable hardstanding areas. ☐ ☐

Option 3 – Appropriate industrial estate locations that are close to the main sources of construction and demolition and excavation waste arisings. ☐ ☐

Option 4 – Continue to encourage recycling initiatives generally, but provide a policy that sets out criteria for assessing the location of facilities. ☐ ☐

Comments

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ISSUE 17 – RESTORATION | **Yes** | **No**

In order to achieve desired after-uses it is important that restoration designs are considered early in the planning process. Depending on circumstances, this may or may not involve the importation of fill materials. To encourage a reduction in landfilling and the reuse and recycling of materials, options for future restoration of sites could include those below. Please indicate those that you agree with.

Option 1 – A restriction on backfilling of construction, demolition and excavation waste except in exceptional circumstances		
Option 2 – An express preference for restoration at lower levels.		
Option 3 – To allow the most economic form of restoration for quarry operators, providing they meet environmental requirements.		

Comments

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ISSUE 18 – AFTER USE | **Yes** | **No** | **Score**

It is proposed to adopt an approach that seeks to provide a greater influence on the restoration and after-use of mineral sites. Emphasis will have due regard to landscape character and distinctiveness, and may include a sequential approach which includes, those options below. Please indicate those that you agree would be appropriate and any order of preference (Score 1 - 7 with 1 = most preferred, 7 = least preferred).

Option 1 – A priority for the promotion of biodiversity.			
Option 2 – A priority for woodland establishment.			
Option 3 – A priority for the protection of valuable soil resources			
Option 4 – A priority for leisure and recreation after uses.			
Option 5 – Guidance on other possible after uses, including disposal of residual waste following thermal treatment.			
Option 6 – Other open use			
Option 7 – All of the above			

Comments

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ISSUE 19 – SITE MANAGEMENT **In connection with the priorities in Issue 18, controls should be included in the DPD to ensure the management of appropriate after-uses for the longer-term. Options for future management of sites may therefore include those below. Please indicate those that you agree would be appropriate and any order of preference.**	**Yes**	**No**	**Score**
<u>Option 1</u> – Provision of a minimum 10-year management period for sites restored to nature conservation and woodland after uses.			
<u>Option 2</u> – Provision of flexible long-term management periods for sites restored to nature conservation, where bio-diversity and / or management of recognised environmental assets are required.			
<u>Option 3</u> – Provision of a nominal 5-year management period only, as allowed currently under aftercare provisions.			

Comments

4 ENERGY AND CLIMATE CHANGE – ISSUES AND ALTERNATIVE OPTIONS

4.1 Climate change (i.e. altered temperature, wind and rainfall patterns) presents a serious global problem, and is largely attributed to human activities.

4.2 Climate change is caused by an increase in the concentration of greenhouse gases, which consequently affects regulation of the temperature of the Earth and its atmosphere. Whilst greenhouse gases occur naturally (and are essential to regulate the temperature of the earth to a level at which life can survive), increasing concentrations arising from man made emissions are resulting in higher temperatures ('the Greenhouse Effect'). In turn, these also affect wind and rainfall patterns.

4.3 Naturally occurring greenhouse gases are water vapour, Carbon Dioxide, Methane and Nitrous Oxide. Their levels are exacerbated by emissions from human processes such as industrial and commercial uses, energy production, waste stored in landfill, and transportation. In particular industrial processes also cause emissions of additional gases that contribute to the Greenhouse Effect. By far however, the gas that has the greatest impact on climate change is Carbon Dioxide. Over the next 100 years Carbon Dioxide is expected to make a relative contribution of 63% of all the greenhouse gases to global warming ('Climate Change: The UK Programme 2006', DEFRA).

4.4 In general, climate change will cause the UK to have wetter winter seasons and warmer summer seasons. Sea levels will rise. Particular effects in the UK include increased flooding and coastal erosion; increased pressure on drainage systems; potentially increased storm damages; habitat and species loss; and summer water shortages.

4.5 To combat the causes of climate change, a series of international and national targets have been agreed for the reduction of greenhouse gas emissions. The UK Government is one of a number of nations that signed up to the Kyoto Protocol, agreeing in 1997 to reduce greenhouse gas emissions by 12.5% from 1990 levels by 2008-2012. However, it has set itself a more stringent target in **Climate Change; The UK Programme 2006** to reduce all greenhouse gas emissions by 20% below 1990 levels, and the same reduction specifically for Carbon Dioxide emissions. A long term target of reducing Carbon Dioxide emissions by 60% by 2050 is also provided, and this is now proposed to become a statutory requirement as set out in the recently published **Draft Climate Change Bill** (2007).

4.6 The Government is proposing reform and modernisation of the planning system, and sets out its proposals in the White Paper 'Planning for a Sustainable Future'. This highlights the crucial role that local authorities have in tackling climate change and promotes up to date development plans that help secure progress against the UK's emissions targets. One of the principal means of reducing emissions is through cleaner energy production, and particularly through renewable energy technologies. The Government has set a target of 10% of energy throughout the UK being provided from renewable sources by 2010. National planning policy advises planning authorities to promote and encourage, rather than restrict, the use of renewable energy technologies, whilst also ensuring that environmental, social and economic impacts are satisfactory. It also promotes recognition of the wide range of renewable energy sources, and their characteristics.

4.7 Addressing greenhouse gas emissions is a significant issue for Yorkshire and the Humber Region, particularly because of the high proportion of electricity generating capacity and heavy industry contained within the area. The Climate Change Action Plan for Yorkshire and the Humber (2005) explains that the region contains 18% of the electricity generating capacity within the UK, and in 2001 its power stations produced 58% of regional greenhouse gas emissions. In the same year, the region produced 12.5% of the total greenhouse gas emissions in the UK, the highest output of any region. The regional target is to reduce its greenhouse gas emissions by 20% between 1990 and 2010.

4.8 The Regional Spatial Strategy explains that studies show at present, that the region is unlikely to meet its reduction targets, and emphasises the priority that must be given to reducing emissions. Its energy policy sets targets for the level of installed, grid-connected energy capacity from renewable sources in 2010 and 2021 within the region. These figures are disaggregated into sub-regional and local targets. The relevant target figures for Leeds and its wider regional area are set out in table 4A below.

Table 4A – Regional Targets for Installed, Grid Connected Renewable Energy in 2010 and 2021 (in Mega Watts)

AREA	2010	2021
REGIONAL: *Yorkshire & the Humber*	708 MW	1862 MW
SUB-REGION: *West Yorkshire*	88 MW	295 MW
LOCAL: *Leeds*	11 MW	75 MW

4.9 Although the Region is a major provider of energy in the UK, sources within the Leeds City Council itself are very limited, and as a result the city imports the majority of its energy.

4.10 For energy and climate change, matters that the Local Development Framework will need to address to accord with the RSS include:

- Policies to support reduction greenhouse gas emissions, improve energy efficiency and maximise the efficient use of power sources, e.g. through building design, maximising use of CHP, using renewable sources of energy wherever possible, providing infrastructure for new energy efficient generation; and supporting the use of clean coal technologies; and
- Policies to support an increase in the capacity of renewable energy capacity so that it achieves the targets set out in table 4A above.

4.11 To promote greater use of local renewable and low-carbon energy, planning authorities are advised to set local level thresholds and proportions of the local renewable and low carbon energy that will be expected to supply new development.

4.12 At this local level, Leeds City Council has signed up to the Nottingham Declaration (2000) on Climate Change. By signing the declaration Leeds City Council has pledged to actively tackle climate change within the area and work with others to reduce emissions throughout the Country. Within this regional and local context Leeds City Council are also in the process of preparing the Leeds Climate Change Action Plan. This forthcoming document will also need to be taken into account within the Local Development Framework and this NRWDPD.

4.13 In terms of energy generation, the issues identified below relate to primary energy sources such as fossil fuels including coal and oil, gas and renewable energy generation. At the mid scale, energy may be generated at a district level, and at the micro level, energy generation relates to individual developments and proposals such as the installation of wind turbines or solar heating.

4.14 Given the increasing focus on the reduction of carbon emissions the promotion of new technology is moving up the energy and climate change agenda. Against this background the status of carbon capture and storage (CCS) is also being reviewed.

4.15 CCS was incorporated within the UK Carbon Abatement Technologies Strategy in 2005 and the Energy Review of 2006. In February 2007 the UK Government announced that £35 million had been allocated for the small scale demonstration of carbon abatement technologies (CAT), including CCS.

4.16 On 19 November 2007, 5 days after the first reading of the Climate Change Bill in the House of Lords, the Prime Minister launched a competition for the full-scale demonstration of CCS by virtue of a single post-combustion coal-fired project. Subject to affordability and state aid clearance, UK Government is willing to fund up to all of the additional costs of incorporating CCS technology, i.e. the costs other than those of the power plant itself.

ISSUE 20 – PRIMARY ENERGY SOURCES **Energy sources for Leeds primarily arise from fossil fuels, which is the traditional method of energy production. Policy at all levels seeks to meet energy needs with reduced environmental impact by reducing the reliance on fossil fuel energy production, and there are national and regional targets for the reduction of carbon dioxide, and other greenhouse gas emissions. However, which of the following options do you consider realistic options in meeting the majority of Leeds' energy requirements? *(For those ticked "yes"' please rank in order of preference, with 1 being highest and 5 being lowest).***	**Yes**	**No**	**Score**
<u>Option 1</u> –Plan for and invest in renewable energy sources as a major provider for the city?			
<u>Option 2</u> – Plan for and invest in Combined Heat and Power (CHP) and district heating as a major provider for the city?			
<u>Option 3</u> – Plan for and invest in other energy sources as a major provider for the City?			
<u>Option 4</u>–Continue to rely on fossil fuels energy production (this would potentially result in penalties for the City if emissions reduction targets are not met)?			
<u>Option 5</u> – A combination of the above?			
Comments			

ISSUE 21 – OIL AND GAS | **Yes** | **No**

The Leeds UDP Review acknowledges the requirement of policies relating to the exploration, exploitation and processing of energy minerals and stipulates locational criteria for processing plants. However, the demand for gas fluctuates on a daily and /or seasonal basis, therefore storage facilities play an important part in safeguarding against disruptions to delivery of supply. Storage facilities should therefore be considered. Such storage facilities may also be appropriate for biogas, carbon storage and other alternative fuels. These must be able to accommodate large volumes of gas safely and be capable of being recharged or drawn upon quickly in order to meet demand. Gas can be stored in porous rock formations such as aquifers or in large underground cavities caused by previous underground mining activity. Properly designed, large scale underground storage is more visually acceptable, practical and safer than surface storage and consideration could be given at this stage to future provision of storage facilities using existing geological features created by previous extraction.

<u>Option 1</u> – Is there a need for policies specifically relating to storage of gas on the basis of local geological circumstances with areas that are potentially suitable for storage, if any, to be identified in the DPD? ☐ ☐

<u>Option 2</u> – In the absence of preferred locations for gas storage, should there be an additional policy designed to ensure the acceptability of any storage proposals that may come forward and incorporating measures to mitigate the potential environmental impacts of the proposed facility, in terms of both surface and sub surface works? ☐ ☐

Comments

ISSUE 22 – RENEWABLE ENERGY TECHNOLOGIES **Policies that support the provision of renewable energy technologies can be provided in this NRWDPD, however there may be limited potential for large scale energy production within the Leeds Area. Which of the following types of renewable energy technologies do you think that it is worthwhile and realistic to promote in Leeds for larger scale energy production? (Definitions are provided in the Glossary of Terms).** ***(For those ticked "yes" please rank in order of preference, with 1 being highest and 7being lowest).***	**Yes**	**No**	**Score**
Option 1 – Wind Turbines			
Option 2 – Solar Power			
Option 3 – Geothermal Technology			
Option 4 – Energy Reclamation from Waste			
Option 5 – Landfill Gas			
Option 6 – Biomass			
Option 7 – Hydropower			

Comments

ISSUE 23 – RENEWABLE ENERGY TECHNOLOGIES **PPS25 "Renewable Energy Technologies" advocates that planning authorities should only allocate specific sites for renewable energy in plans where a developer has already indicated an interest in the site, has confirmed that the site is viable, and that it will be brought forward during the plan period. This is partly to ensure that land is not prevented from being used in another beneficial way when there is no commitment to harness renewable sources of energy from the site. However, research and consultation can be used to identify search areas that benefit from positive attributes for specific types of technology (e.g. wind speeds), and where negative effects will be minimal or can be satisfactorily addressed. Do you think that:**	**Yes**	**No**
Option 1 – Research and consultation to be undertaken to provide spatial guidance in the NRWDPD on locations that are suitable for a particular type of renewable energy development? Or		
Option 2 – Policies to support renewable energy developments should be based solely on meeting specified criteria? Or		
Option 3 – The NRWDPD should contain a mixture of spatial guidance and criteria based policies?		

Comments

ISSUE 24 – MID SCALE GENERATION RENEWABLE ENERGY

PPS25 advocates the provision of renewable energy generation in new developments, to lower carbon emissions. This is supported in the RSS which states that planning authorities should set local level thresholds and proportions of local renewable and low carbon energy for supplying new development. The Core Strategy Issues and Alternative Options Paper suggests options on the percentage of renewable energy to be provided, and on targets for reducing carbon emissions for new developments. However should this be applied to all new developments, or only those over a certain threshold?

	Yes	No
Question - Do you think that the NRWDPD should provide an overall policy basis for supporting renewable energy development as an integral part of new developments?	☐	☐
Threshold Options		
Option 1 – No Threshold (all development)	☐	☐
Option 2 – 10 or more dwellings, or 1000m² of non-residential floorspace (or an area based equivalent) as referred to in the RSS?	☐	☐
Option 3 – A higher threshold (please specify in comments box below)?	☐	☐
Option 4 – Other	☐	☐

Comments

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ISSUE 25 – RENEWABLE ENERGY TECHNOLOGIES

	Yes	No
In the event that Leeds is unable to produce significant levels of energy from renewable technologies within the Authority Area, would you be supportive of the Council collaborating with other agencies to provide more renewable energy sites in appropriate locations (this may require incentives to partner authorities whose local characteristics mean that there is more potential to meet energy demands from renewable technologies)?	☐	☐

Comments

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ISSUE 26 – MICROGENERATION

	Yes	No
Micro-generated renewable technologies encourage the maximisation of local energy production in an environmentally friendly manner. Cumulatively, they have the potential to make a significant contribution. Examples of microrenewable options include solar panels, small wind turbines, heatpumps, biomass, Combined Heat and Power (CHP) and small scale hydro-power. Policies can be formulated that either promote or require new developments to incorporate wherever possible such technologies. Do you:		
Option 1 – Agree with this approach and think that this should be considered as a policy for all types of development in the NRWDPD?	☐	☐
Option 2 – Agree with this approach but think that the other DPDs to be prepared should each consider this issue separately in relation to the different types of development (e.g. housing, employment, retail) as there may be alternative solutions?	☐	☐
Option 3 – Disagree with this approach and think that policies on micro-renewables should not be included?	☐	☐

Comments

ISSUE 27 – MICROGENERATION

Do you have any suggestions for other micro renewable technologies that could be used in Leeds other than those referred to in the previous issue?

Comments

ISSUE 28 – MICROGENERATION

	Yes	No
As part of measures to streamline the current planning system, the Government is considering proposals to encourage more micro-renewable technology development in households and commercial uses by amending regulations that cover permitted development rights so that fewer of these types of developments will require planning permission. As part of this DPD preparation consultation process the Council can write to Government to offer support for this proposal, and if necessary incorporate such support into the text of the DPD. Do you agree with this approach?	☐	☐

Comments

ISSUE 29 – MICRO HYDRO GENERATION | **Yes** | **No**

Micro hydro generation refers to hydro power systems with a power rating of 100kW or less. Hydro generation utilises the energy of falling water to generate electricity, and can be used for individual properties. The potential for this type of technology within the Leeds area needs to be investigated further. Do you think that:

Option 1 – The council should do nothing on this issue as it is likely to be of limited significance? ☐ ☐

Option 2 – The Council should appraise the potential for micro hydro power further for this NRWDPD? ☐ ☐

Option 3 – The Council should appraise the potential for micro hydro power further, but it would be more appropriate for different DPDs e.g. on Housing? ☐ ☐

Comments

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ISSUE 30 – MICROGENERATION | **Yes** | **No**

There is the opportunity for adjacent developments to improve their energy resource efficiency by working together, for example institutions obtaining waste water heat from nearby businesses. Do you think that this is something that should be investigated further in this DPD, with policies promoted? ☐ ☐

Comments

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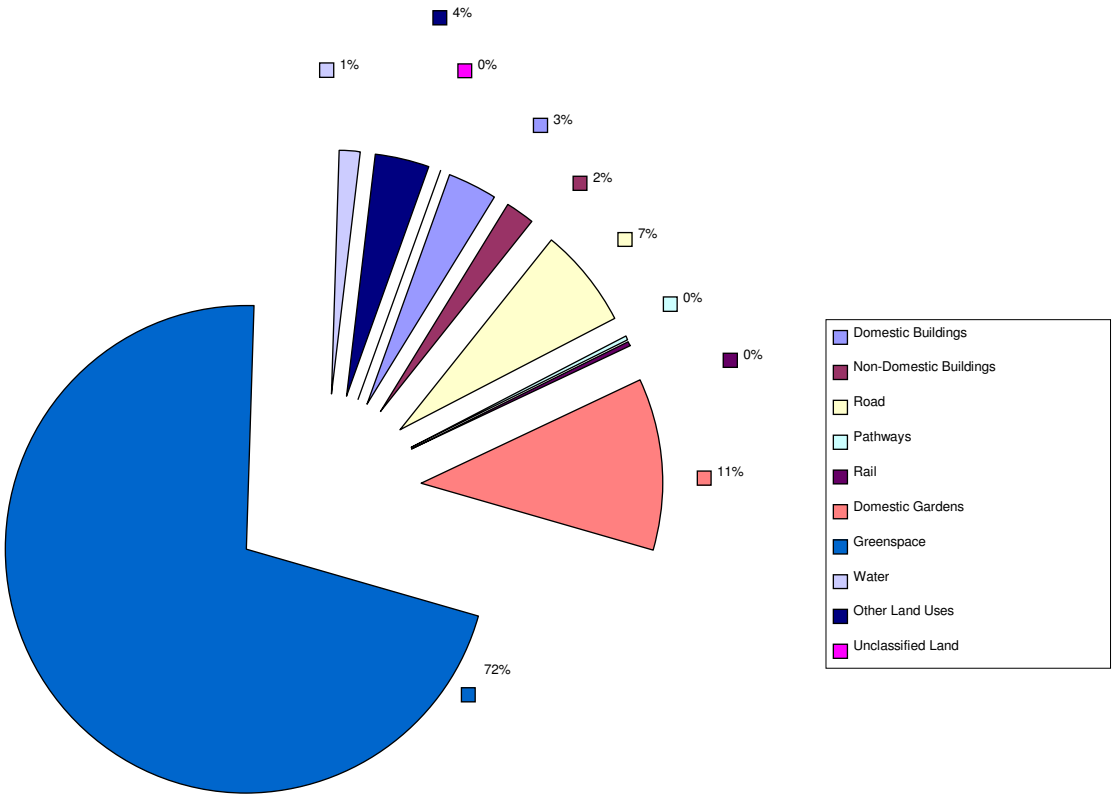
5 LAND USE – ISSUES AND ALTERNATIVE OPTIONS

5.1 Land is a finite resource, but is an essential component in the drive to improve social and economic conditions for an area; without a suitable supply of land, development potential is thwarted. However a careful balance is required so that the environmental quality of an area is not damaged by development in inappropriate places. A key issue for this NRWDPD will be to provide guidance on efficient ways to use Leeds' land resources to meet its growth aspirations without damaging environmental quality.

5.2 Although the Leeds City Council area includes a major urban centre, the majority of the area (72%) is in fact classified as green space, as shown in Figure 5.1 below.

Figure 5.1 - Land Use within Leeds City Council



5.3 National and regional planning policy has a general presumption in favour of developing brownfield land as opposed to Greenfield (with a national target of 60% housing to be located on brownfield sites). Leeds currently exceeds this target. However brownfield development can present its own sustainability and practical issues, such as,

- Locations being unsuitable for particular types of land use, e.g. residential within a predominantly industrial area;
- Poor infrastructure and traffic management capabilities for the nature of the development;
- Development exacerbating poor local air quality; and
- Severe contamination to the extent that a development is not economically viable.

5.4 The Core Strategy Issues and Options Paper contains an option regarding the release of additional Greenfield land to meet housing land requirements. This could be relevant to all types of development, and it is possible that in ensuring efficient use of land resources and meeting overall sustainability criteria, it may be appropriate to release parcels of Greenfield (including Green Belt) land, subject to proper assessment of suitability and appropriate developer obligations.

5.5 Consequently, for brownfield sites with lesser sustainable development potential and / or significant economic viability issues, it may be appropriate to consider 'greening' those sites, (e.g. open space, woodland) which would improve the visual and environmental quality of the area (for example by improving local biodiversity and air quality) within the Core Strategy.

5.6 Within the urban area of Leeds City Council, there is a good stock of vacant and derelict land that can be used for built development needs such as housing and commercial development. However, open space is limited. Good quality green space makes a positive contribution, for example towards health and wellbeing, biodiversity, and the visual character of an area. The Council seeks to enhance its green space quantity and quality, and has set out potential options in its Core Strategy Issues and Alternative Options Paper. A dedicated DPD on Greenspace, Housing and Employment within which this issue will be addressed is to be prepared.

5.7 The issue below refer to contaminated land, a matter that directly affects the use of land. However please remember that in each of the other key themes, the identified issues and options will also directly affect the use of land as a resource.

ISSUE 31 – CONTAMINATED LAND	**Yes**	**No**
In order to encourage regeneration and development of land that is contaminated, should the Council offer incentives for developments? These could include an agreement to prioritise processing applications for development on contaminated sites, or fewer planning obligations.	☐	☐

Comments

6 WATER RESOURCES – ISSUES AND ALTERNATIVE OPTIONS

6.1 National planning guidance highlights that water is a scarce resource in England and Wales and recognises that the availability of water resources should be recognised in development plans. It advocates policies that promote water efficient development and minimise demand on existing water resources as well as encouraging water-efficient installations, sustainable urban drainage systems, grey water recycling and rainwater harvesting schemes and attenuation of surface water drainage. The importance of protecting quality water resources is also emphasised, and authorities must address targets for improving water quality as required by the Water Framework Directive.

6.2 Nationally the Water Framework Directive requires surface waters and groundwater sources to meet 'good' ecological status by 2015, whilst also providing a new opportunity to plan for and deliver, through working with other interested parties, a better water environment. It is the most important new European water legislation to emerge for decades. It will help the Environment Agency, as the lead authority for implementation in England and Wales, to:

- improve inland and coastal waters and protect them, especially from diffuse pollution in urban and rural areas, through better land management,
- drive wiser, sustainable use of water as a natural resource,
- create better habitats for wildlife that lives in and around water, and
- create a better quality of life for everyone.

6.3 The Water Framework Directive applies to all surface freshwater bodies (including lakes, streams and rivers), groundwaters, groundwater dependant ecosystems, estuaries and coastal waters out to one mile from low-water. It came into force in December 2000, and transposed into UK law by December 2003. Through the Directive classification systems are used to assess the state of the environment at a point in time. These classification systems indicate where the quality of the environment is good, and where it may need improvement. They help to plan what measures might be needed to improve environmental quality, and what can be used to measure improvements.

6.4 The Water Framework Directive changes the way the status of a water body is assessed and also introduces a new requirement to assess the status of groundwater. The Environment Agency is therefore developing new classification systems for rivers, lakes, estuaries, coastal waters, and groundwaters, which look at ecological, chemical and physical elements. The information gathered through monitoring programmes enables surface water bodies to be classified into one of the five ecological status classes (high / good / moderate / poor / bad)

6.5 One of the main goals of the Water Framework Directive is to aim for at least good ecological and chemical status for surface waters, and good chemical and quantitative status for groundwaters. Surface water bodies of good ecological status should deviate only slightly from the biological, structural and chemical characteristics that you would expect under undisturbed conditions.

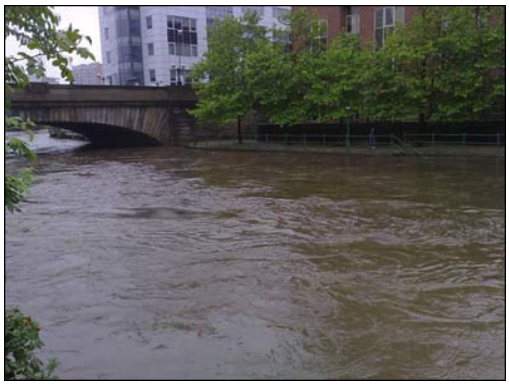
6.6 At a regional level, the RSS for Yorkshire and Humber states that by 2021 the region will have a high standard of water quality.

6.7 The Water Framework Directive is the main driver for including policies on water efficiency and sustainable design within LDF documents. The SPD on Sustainable Design and Construction prepared by Leeds City Council as part of the LDF follows on from the Water Framework Directive and includes guidance on water efficient developments.

6.8 The large majority of river water in Leeds is classed as good or fair quality according to the Environment Agency's general quality assessment. There has been an improvement in water quality since 1990 due mainly to improved treatment of sewage and industrial waste. Further improvements will have to be made to meet the requirements of the Water Framework Directive – that all rivers will have to meet 'good' status by 2015.

6.9 The Core Strategy Issues and Options Paper contains issues and options relating to the use of land that is within identified areas of flood risk. It explains that a Strategic Flood Risk Assessment (SFRA) carried out for Leeds has placed areas at risk into three categories,

- **Zone 3b functional floodplain** - areas where water has to flow in times of flood and where there will be no attempt to prevent it from doing so.
- **High Flood Risk Zone 3a(ii)** - areas that would be flooded on average once every 20 years, i.e. where there is a 5% chance of flooding in any one year.
- **High Flood Risk Zone 3a(i)** - areas that would be flooded on average once every 100 years, i.e. where there is a 1% chance of flooding in any one year.
- **Medium Flood Risk Zone 2** - areas that would be flooded on average once every 1,000 years, i.e. where there is a 0.1% chance of flooding in any one year.



6.10 The Environment Agency has recently published a report into the floods which occurred in the summer of 2007. Within Leeds the most intense rainfall fell in a 12 hour period on the 25 June. In many places the average rainfall for the whole month of June fell in a 24 hour period. Wyke Beck along with many other rivers and watercourses were unable to cope with the quantity of water running into it and overtopped properties in the Halton are and the River Aire overtopped its banks in central Leeds flooding property in the Calls and Brewery Wharf areas. The information gathered by the Environment Agency following the floods will now be used to revise the indicative flood maps and update the flood forecasting and warning systems. A review of flood defences will also be undertaken along with a review of the current maintenance programme of the Agency's assets.

6.11 The Water Asset Management Group within Leeds City Council has also undertaken a review and has put forward recommendations to work closely with the Environment Agency and Yorkshire Water in identifying areas within Leeds where the existing drainage systems are under stress, causing flooding following rainfall events as severe as summer 2007.

6.12 Sustainable drainage systems provide a more sustainable alternative to the traditional approach to surface water drainage of piping run-off from hard surfaces to the sewerage system or nearby watercourses. Sustainable drainage seeks to mimic more natural processes by allowing rainfall to soak into the ground where possible or by delaying discharges. This reduces both the volume and rate of surface water runoff to sewers and watercourses which has a number of benefits including reduced flood risk downstream, improved water quality and biodiversity.

6.13 A range of sustainable drainage techniques are available and features will need to be tailored to each individual site. The aim of sustainable drainage is to deal with surface water run-off as close to the source as possible.

ISSUE 32 – WATER QUALITY | **Yes** | **No**

The development and remediation of brownfield, and particularly contaminated sites adjacent to water resources has the potential to improve local water quality. However unless carefully managed and monitored development may potentially create adverse impacts. The Council considers that policies in the NRWDPD should protect sensitive water receptors from any potential negative impacts of new development and promote improvements in water quality in line with the requirements of the Water Framework Directive. Would it be appropriate for the DPD policy to:

<u>Option 1</u> – Define sensitive receptors where adjacent development will not be allowed, and identify the distance of an appropriate buffer zone, or ☐ ☐

<u>Option 2</u> – Use a criteria based policy approach against which it must be demonstrated that a development will at minimum have no impact on water quality with mitigation measures, or ☐ ☐

<u>Option 3</u> – Use a criteria based policy approach against which there must be a demonstrated improvement on existing water quality of any adjacent water resources. ☐ ☐

Comments

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ISSUE 33 – DRAINAGE | **Yes** | **No**

The flooding which occurred within Leeds in the summer of 2007 was largely as a result of existing inadequate drainage capacity, rather than fluvial flooding from rivers and other surface water bodies. The NRFA will identify areas of particular drainage stress within Leeds which are susceptible to flooding through existing inadequate drainage capacity. Within Leeds an increasing number of gardens are being developed using impermeable surfaces under existing householder permitted development rights, thereby increasing run-off and impacting on drainage. The NRWDPD could include an overarching proposal that restricts development which is classified as permitted development unless permeable surfaces are used (See the Glossary of Terms for definitions). Would it be appropriate for DPD policy to,

<u>Option 1</u> – Remove permitted development rights across the Leeds City area for development using impermeable surfaces? Or, ☐ ☐

<u>Option 2</u> – Identify the areas of drainage stress and remove permitted development rights for development using impermeable surfaces within these areas only? ☐ ☐

Question – Are there alternative ways of reducing the stress upon areas of existing inadequate drainage capacity?

Comments

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ISSUE 34 – WATER EFFICIENCY

	Yes	No
Measures to improve water efficiency in new developments should be promoted. These could include measures such as the implementation of sustainable urban drainage systems, grey water recycling, schemes to utilise rainwater and also attenuation of surface water drainage and its reuse. However, the DPD could include an overarching policy that supports water efficiency in new developments. Do you agree with this approach?		
Option 1 – Yes, I think that the NRWDPD should promote water efficient developments	☐	☐
Option 2 – No, I do not think that water efficient developments are an issue.	☐	☐

Question – Are there alternative ways of improving water efficiency in new developments that you think should be included?

Comments

ISSUE 35 – WATER RESOURCES

	Yes	No
The concept of reducing, reusing and recycling water resources could be applied in order to minimise the loss of water resources and to protect good quality water. A criteria based policy approach could be taken for new development requiring information to be supplied against which this principle would be assessed. Which of these options do you agree with?		
Option 1 – This would be appropriate for all new development.	☐	☐
Option 2 – This would only be appropriate for major development, e.g. large scale commercial uses and residential developments.	☐	☐
Option 3 – This is not appropriate.	☐	☐

Comments

7 AIR QUALITY – ISSUES AND ALTERNATIVE OPTIONS

7.1 Air is a vital natural resource to sustain all forms of life and consequently pollution and reduced quality can have a significant adverse impact on the health of humans and other animal species. It can also damage other biological resources such as plant species. Impacts arising from development on air quality are therefore a major planning consideration.

7.2 The Air Quality Strategy 2007 sets out national standards and objectives for air pollutants in the UK. National air quality standards for the two pollutants identified as requiring Air Quality Management Area (AQMA) status in the Leeds area are;

- Particles (PM_{10}) are not to exceed an annual mean of 40µg.m^{-3} and a 24 hour mean not to exceed 50 µg.m^{-3} more than thirty five times a year.
- Nitrogen Dioxide levels are not to exceed an annual mean of 40µg.m^{-3} and a 1 hour mean not to exceed 200µg.m^{-3} more than 18 times a year.

7.3 National planning policy highlights that air quality should be taken into account in planning decisions and in siting development. Policies should support and contribute to the reduction of air pollutants from vehicles, and also all types of development (not only industrial, but commercial, agricultural and even domestic uses). A particular concern in Leeds, as outlined in the Regional Spatial Strategy, is the need to improve air quality close to the motorways and major roads that run through the region.

7.4 Within Leeds, there are eight designated Air Quality Management Areas (AQMA) i.e. areas that have poor air quality (See Appendix 4). Seven of these have been identified as a result of Nitrogen Dioxide pollution, and one for Fine Particles. It is a key challenge for the Council to improve air quality, and particularly in these designated areas. The Leeds Air Quality Action Plan highlights six key objectives to improve air quality in the area, which primarily relate to reducing emissions from traffic, but also emissions from industrial and domestic sources. The DPD that the Council will produce on Transport will have a significant role to play in addressing the issue of air quality by promoting sustainable transport measures that reduce travel demand and contribute to a reduction in vehicle emissions. However, the Council believes that it is appropriate that this NRWDPD provides overall policies for the improvement of air quality.

ISSUE 36 – AIR QUALITY	**Yes**	**No**
Do you agree that the primary cause of air pollution and reduction in quality is as a result of transport emissions?	☐	☐
If so, do you agree with either of these options?		
<u>Option 1</u> – The NRWDPD should contain a policy on the improvement of air quality, but this issue should also be specifically addressed within the Transport DPD, or	☐	☐
<u>Option 2</u> – Issues of air quality improvement should be solely addressed in the Transport DPD	☐	☐
<u>Option 3</u> – Issues of air quality improvement should be addressed in the DPDs on Transport, Housing and employment and Retail (given that air pollution is also caused by carbon emissions from development).	☐	☐

Comments

ISSUE 37 – AIR QUALITY | **Yes** | **No**

A secondary but important issue with regards to air quality is air pollution emitted from industrial premises and how this may affect local residents (See the Glossary of Terms and List of Abbreviations for definitions). Should the Council,

Option 1 – Make a presumption against new industrial processes that produce emissions to air from residential areas and encourage the retrofitting of BAT to the highest possible standard into existing industrial premises? Or ☐ ☐

Option 2 – Make a presumption against new industrial processes that produce emissions to air from residential areas and negotiate with the Environment Agency (A1) and / or Local environmental health bodies (A2)? Or ☐ ☐

Option 3 – Demand the strictest emission technologies on the market in line with the strictest interpretation of BAT particularly (even if it goes beyond Environment Agency PPC guidelines) and negotiate with the Environment Agency (A1) and or Local environmental health bodies (A2)? Or ☐ ☐

Option 4 - Demand the strictest emission technologies on the market in line with the strictest interpretation of BAT particularly (even if it goes beyond Environment Agency PPC guidelines) and negotiate with the Environment Agency (A1) and or Local environmental health bodies (A2) to encourage the retrofitting of BAT to the highest possible standard. ☐ ☐

Comments

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ISSUE 38 – AIR QUALITY | **Yes** | **No**

If this NRWDPD contains a policy on improving air quality, would it be appropriate to have a policy that requires development to address and mitigate against air quality impacts (for example through biodiversity creation, or limits on transport use within developments) in the following locations:

Option 1 – Only identified AQMAs (both current and future). ☐ ☐

Option 2 – Identified AQMAs and an appropriate buffer zone around its perimeter, or ☐ ☐

Option 3 – Throughout the whole of the City Council area? ☐ ☐

Question – If you think Option 2 is appropriate, what width of buffer zone would you suggest?

Comments

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8 OVERVIEW AND INTEGRATION

8.1 The preceding chapters have concentrated on the currently identified main issues affecting the key themes that have been considered for this NRWDPD. However, these issues are not isolated and often relate to each other. In particular, the use of land, which is itself a finite natural resource, is critical to each of the themes. Inefficient and poor use of land has the potential to seriously harm other natural resources such as air and water quality, biodiversity, minerals supply, etc. In this NRWDPD, allocations of land for the management of natural resources and waste can be provided, and therefore it is important to think about how these can be directed to the most efficient and sustainable locations.

ISSUE 39 – SITE ACCESSIBILITY – WASTE AND MINERALS	**Yes**	**No**
National and regional guidance seeks to ensure sustainability through promoting sites which could be accessed by alternative modes of transport. This is more likely to be feasible where major waste and minerals facilities are co-located or developed with other complimentary uses. It may also be possible to utilise alternative fuels for lorry transportation. Within the Leeds District there are also three railheads which have the capacity to move minerals, processed aggregates or waste. Of these only one is currently active. There is also an existing inland waterway network with links to Commercial Navigations.		
Options are:		
<u>Option 1</u> – Continue to rely on road transport as the main mode of minerals and waste transfer as this retains flexibility.	☐	☐
<u>Option 2</u> – Are additional facilities such as rail borne depots or wharfs which support water transport required, thereby reducing the need for road transport, and if so, should broad locations which would support the shared facilities for minerals and waste and other materials be identified?	☐	☐

Comments

ISSUE 40 – INTEGRATION OF RESOURCE MANAGEMENT USES

Land is a finite resource with many conflicting demands being places on it. Which natural resource management use do you think will be compatible with existing land types?

✓ = Agree
X = Disagree

For example if you think that wind power facilities could be located adjacent to canals or rivers please tick the box. If you disagree then please put a cross in the box, and if you have no comment please leave the box blank.

AREA CHARACTERISTIC	NATURAL RESOURCE MANAGEMENT FACILITIES			
	Wind Power	CHP	Waste Recycling & Management	Minerals Extraction
Flood Zone 3 (High Risk)				
High Water Quality				
High Wind Speed				
Existing Open Space				
Biodiversity Character				
Mineral Resource Area				
Existing source of heat generation				
Area identified for Urban Growth				
Canals and Rivers				
Adjacent to existing Railway Lines				

ISSUE 41 – INTEGRATION OF RESOURCE MANAGEMENT USES
If a particular type of area is compatible with different types of natural management use, then a particular site could be used for multiple uses. Which natural resource management facilities would be compatible if developed on one site (Please tick all that apply)?

NATURAL RESOURCE MANAGEMENT FACILITY	Wind Power	CHP	Waste Recycling & Management Facilities	Minerals Extraction
Wind Power				
CHP				
Waste Recycling& Management Facilities				
Minerals Extraction				

9 MONITORING

9.1 The Planning and Compulsory Purchase Act (2004) requires Local Planning Authorities to produce an Annual Monitoring Report (AMR). This will be the main means of reporting on the Natural Resources DPD's performance and effects. It will help in allowing the Council to update parts of the Local Development Framework (LDF) and respond quickly to changing priorities across the District. The monitoring system will assess which of the DPD policies are being achieved and which are failing; it will explain why and set out steps to be taken to correct this.

9.2 As explained within Chapter 1 (Introduction) of this Issues and Alternative Options report, the Council is preparing a Natural Resource Flow Analysis and Ecological Footprint for the City Council area, which will inform the progress that is being made against policies to maximise efficiency of natural resources. Comments on this approach are welcomed.

10 GLOSSARY OF TERMS

10.1 The terminology used in this Issues and Alternative Options report (unless a definition is given within the report text) is summarised below:

Term	Definition
Aftercare	The treatment of land for a period (usually five years) following restoration to bring the land to the required standard so that it is fit for its agreed after-use.
After-use	The use (nominally for agriculture, forestry or amenity) that land is put to once restored following mineral working
Aggregates	Materials such as sand and gravel and crushed rock used in the construction industry for purposes such as concrete and roadstone.
Agricultural Waste	Waste from premises used for agriculture within the meaning of the Agriculture Act 1947.
Ancient Woodland	An area of woodland which has had a continuous history of tree cover since at least 1600.
Apportionment	The County's share of Regional aggregate provision
Aquifer	A water bearing geological formation.
Area of Search	A broad area within which some mineral extraction may be acceptable subject to detailed consideration.
Biodiversity Action Plan (BAP)	A strategy for conserving, restoring, enhancing and creating habitats of importance.
Commercial and Industrial Waste (C&I) Waste	Broadly, *commercial waste* is classified as waste arising from wholesalers, catering establishments, shops and offices (in both the public and private sectors) while *industrial waste* is waste arising from factories and industrial plants. Neither of these categories includes consideration of wastes from the construction, demolition and excavation sectors.
Composting (Aerobic Digestion)	A biological process in which biodegradable wastes such as garden and kitchen wastes are decomposed in the presence of air by the action of micro-organisms (for example bacteria and fungi).
Construction and Demolition and Excavation Waste	Construction and demolition waste' (C&D waste) includes hard C&D and excavation waste materials as separately defined in this glossary. These waste materials arise as a direct result of: ▪ the total or partial demolition of buildings and/or civil engineering infrastructure; or ▪ the construction of buildings and/or civil engineering infrastructure.

Development Plan	Statutory documents produced under the Planning Acts that set out the planning policies and proposals for the operational development and use of land. Decisions on planning applications must conform to the development plan, unless material considerations indicate otherwise.
Development Plan Document (DPD)	A term introduced by the Planning and Compulsory Purchase Act 2004. These set out spatial planning policies and proposals for an area or topic. They replace the former Structure Plan and Local Plans and include the core strategy, detailed development control policies, site specific allocations of land, area action plans (where needed) and a proposals map, together with the Regional Spatial Strategy.
Environment Agency	Regulatory Authority formed in 1996, combining the functions of the former National Rivers Authority, Waste Regulation Authorities and Her Majesty's Inspectorate of Pollution.
Excavation waste	Includes both clean and contaminated waste soil, stone and rocks arising from land levelling, civil works and/or general foundations.
Fluvial	The term fluvial refers to rivers, river waters or any plants and animals that inhabit them
Groundwater	Water within soil, sediments or rocks below the ground surface. Water contained within underground strata is referred to as an aquifer
Hazardous Waste	Specifically defined in European law as those wastes featuring on a list - the European Waste Catalogue (EWC), drawn up by the European Commission because they possess one or more of the hazardous properties set out in the Hazardous Waste Directive
Impermeable	An impermeable surface is one which does not allow the passage of water through it and which water therefore will run off
Inert waste	Waste that does not undergo any significant physical, chemical or biological, transformations.
Landbank	A stock of mineral reserves with planning permission for their winning and working.
Landfill and Landraise	Two main ways of disposing of waste to land. Landfill is when a large hole, usually an old quarry is filled up with waste whereas land raise operations place waste on top of existing land levels thus raising the height of the land.
Mineral Consultation Area	An area identified in order to ensure consultation between the relevant LPA and the Mineral Planning Authority before certain non-mineral planning applications made within the area are determined.
Mineral Planning Authority (MPA)	An organisation with statutory planning powers relating to minerals development

Municipal Waste (MSW)	Municipal waste includes household waste and any other wastes collected by waste collection authorities (or their agents) such as municipal parks and gardens waste, beach cleansing waste, commercial or industrial waste and waste resulting from the clearance of fly-tipped materials.
Opencast Working	A form of surface mining to win minerals.
Permeable	A permeable surface is any surface which will allow the passage of water through it; for example gravel is permeable, while tarmac is not. Different surfaces have differing levels of permeability and when saturated, water will run off permeable surfaces.
Permitted Development Rights	Rights to carry out certain limited forms of development without the need to make an application for planning permission, as granted under the terms of the Town and Country Planning (General Permitted Development) Order 1995.
Planning Conditions	Conditions attached to a planning permission for the purpose of regulating and controlling the development.
Primary Aggregates	Naturally occurring sand, gravel and crushed rock used for construction purposes.
Reclamation of mineral workings	The combined processes of Restoration and Aftercare following completion of mineral working.
Recycled Aggregates	Aggregates produced from recycled construction waste such as crushed concrete, planings from road surfacing etc.
Restoration	Operations designed to return an area to an acceptable environmental state, whether for the resumption of the former land use or for a new use following mineral working. Involves the reinstatement of land by contouring, the spreading of soils or soil making materials etc.
Saved Policies	As part of the local planning context, the City Council's Unitary Development Plan (UDP, which was adopted in August 2001, was followed by a selective UDP review (adopted in July 2006). Under the Local Development Framework transitional arrangements, policies in the UDP are 'saved' for an initial period of 3 years or until they are replaced by LDF policies and documents. See the link below for further details. http://www.leeds.gov.uk/page.aspx?pageidentifier=6e8fe6ea-41bb-4840-b9df-efe98b3a4e65
Scheduled Ancient Monuments	Nationally important monuments and archaeological areas that are protected under the Ancient Monuments and Archaeological Areas Act 1979.
Secondary Aggregates	By-product wastes e.g. power station ash and colliery spoil that can be used for low-grade aggregate purposes, either solely or mixed when mixed with primary aggregates.
Sites of Special Scientific Interest (SSSIs)	Sites that are notified and protected under the Wildlife and Countryside Act 1981 on account of their flora, fauna, geological or physiographical features.

Special Area of Conservation (SAC)	An SSSI considered being of international importance designated under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora.
Statement of Community Involvement (SCI)	A document that sets out the planning authority's intended consultation strategy for different elements of the planning process. This is a requirement brought in by the Planning and Compulsory Purchase Act 2004.
Sterilisation	When a change of use or the development of land prevents possible mineral exploitation in the foreseeable future.
Strategic Environmental Assessment (SEA)	An evaluation process for assessing the environmental impacts of plans and programmes. SEA is a statutory requirement introduced through and EU Directive.
Supplementary Planning Document (SPD)	A document that expands on policies set out in a DPD or provides additional detail.
Sustainability Appraisal (SA)	An evaluation process for assessing the environmental, social, economic and other sustainability effects of plans and programmes. SA is a statutory requirement introduced by the 2004 Planning Act.
Thermal Treatment (Incineration)	The burning of waste at high temperatures. This reduces its volume by turning it to ashes and also generates heat, which may be used to generate electricity. Some industrial processes co-incinerate (mix waste with conventional fuels) to produce energy. Thermal Recovery facilities use waste to generate heat/electricity and are also known as Energy from Waste plants (EfW).
Waste Transfer Stations (WTS)	Facilities for receiving and "bulking up" waste before its onward journey for treatment, recycling or disposal elsewhere. They are used to transfer waste from smaller road vehicles to vehicles with greater capacity or trains /barges, thus reducing the related traffic.
Yorkshire and Humber	A body comprising of representatives from local authorities and other economic, environmental and social organisations. Responsible for preparing the Regional Spatial Strategy.

11 LIST OF ABBREVIATIONS

AAP	Area Action Plans
AMR	Annual Monitoring Report
AQMA	Air Quality Management Area
BAT	Best Available Techniques
BAP	Biodiversity Action Plan
BGS	British Geological Survey
BMW	Biodegradable Municipal Waste
CDEW	Construction, Demolition and Excavation Waste
CHP	Combined Heat and Power
C&I Waste	Commercial and Industrial Waste
CNG	Compressed Natural Gas
DCLG	Department for Communities and Local Government
DPD	Development Plan Document
DPH	Dwellings Per Hectare
EF	Ecological Footprint
ELV	End of Life Vehicles
GDP	Gross Domestic Product
IAO	Issues and Alternative Options Paper
IWS	Integrated Waste Strategy
LATS	Landfill Allowance Trading Scheme
LCC	Leeds City Council
LDD's	Local Development Documents
LDF	Local Development Framework
LNR	Local Nature Reserve
LPG	Liquefied Petroleum Gas
MPA	Mineral Planning Authority
MPG	Minerals Policy Guidance

MPS	Minerals Planning Statements
MSA	Mineral Safeguarding Areas
MSW	Municipal Waste
NRFA	Natural Resource Flow Analysis
NRWDPD	Natural Resources and Waste Development Plan Document
PPC	Pollution Prevention Control
PPG	Planning Policy Guidance
PPS	Planning Policy Statements
REAP	Resource and Energy Analysis Programme
RPB	Regional Planning Bodies
RSS	Regional Spatial Strategy
RTAB	Regional Technical Advisory Body
SAMs	Scheduled Ancient Monuments
SSSIs	Sites of Special Scientific Interest
SAC	Special Area of Conservation
SCI	Statement of Community Involvement
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SPD	Supplementary Planning Document
SA	Sustainability Appraisal
UDP	Unitary Development Plan
WDA	Waste Disposal Authority
WEEE	Waste Electrical and Electronic Equipment Directive

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