

WASTE, MINERALS AND AGGREGATES BACKGROUND DOCUMENT

WASTE

Background

1. As a society, we produce more waste than ever before and historically, most of this waste has been disposed into landfill sites. In simple terms, the problem is that 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. Materials which could and should be re-used or recycled have been lost to landfills and this in turn puts pressure on the finite resources that remain. 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. In order to address the unsustainable pattern of growth, management and disposal which has developed over time, the European Union and the UK Government have provided a framework and set targets to limit waste production, 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 need for self sufficiency and to ensure that waste is managed and disposed of as near to its source as possible are the key drivers which the Council must have regard to.
3. In Leeds it has long been recognised that waste facilities are sometimes unpopular. However, it is the role of the waste planning system to provide the land use and spatial planning framework through which the necessary facilities for waste management and ultimate disposal of residual waste can be planned for and provided. The framework must correspond to the type, quantity and location of waste generated within Leeds District and it must also balance the needs of waste management against the need to protect the natural environment and the quality of life enjoyed by those who live and work in the area. This is not always easy and it is vital that careful consideration is given to each waste related issue and the possible options that are open to us.
4. It is important that we make appropriate provision for the new facilities that will enable us to make the shift away from disposal by landfill to recovery of resources from waste. The type and size of facilities required will be varied and this Development Plan Document (DPD) does not seek to specify the technologies which should be used but rather makes provision through policies and the identification of potential sites for the range of new waste management facilities and new technologies to deal with all waste streams. Definitions of the potential waste facility types and processes which it may be necessary to provide sites for in the future are provided above.

EUROPEAN, NATIONAL, REGIONAL AND LOCAL POLICY

5. Planning for waste management will be affected by the requirements imposed by European and National legislation and by National, Regional and Local policy. The principle aims of the current legislative framework are to embrace the following principles; Precautionary Principle, Polluter Pays and Proximity Principle (The 3 Ps). This section provides an overview of the main legislative and policy drivers to be considered in relation to waste management.

Current European and National Waste Legislation

- **Waste Framework Directive (75/442/EC)** - The Waste Framework Directive sets out general requirements for waste management across the EU. This Directive is the overarching legislative framework and is of particular significance to developments in waste management. It defines waste and provides a foundation for sustainable waste management practice by promoting waste reduction, re-use, recycling and recovery. It requires EU countries to:

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- Restrict the production of waste by promoting clean technologies and products, which can be recycled or reused;
- Encourage recycling and reuse of raw materials;
- Aim for the European Community to become self-sufficient in waste disposal, and for each member state to provide their own facilities for waste treatment and disposal;
- Harmonise waste disposal and recovery laws between member states;
- Reduce the movements of waste; and
- Prevent pollution caused by waste disposal and recovery operations

- **The Landfill Directive (1999/31/EC)** - The Landfill Directive aims to reduce, by 2020, the amount of biodegradable municipal waste (BMW) going to landfill to 35% of the total BMW (by weight) produced in 1995. Intermediate targets are to achieve a 75% reduction by 2010 and 50% by 2013. Other key objectives of the Landfill Directive are to:

- Classify Landfill sites as containing inert waste, hazardous waste or non-hazardous waste;
- Ban the co-disposal of hazardous and non-hazardous wastes;
- Practice pre-treatment of waste going to landfill;
- Reduce the amount of biodegradable municipal waste (BMW) sent to landfill (this is discussed further in Section 3 as it is yet to have been fully implemented in the UK);
- Ban the disposal of tyres in landfill (whole tyres were banned in 2003 and shredded tyres will be banned in 2006);
- Ban certain types of hazardous waste such as clinical or infectious from going to landfill;
- Ban the disposal of liquid waste to landfill; and
- Ensure that all landfills are suitably engineered

The Landfill Directive is implemented in England through the Landfill (England and Wales) Regulations 2005 (as amended) and through the Landfill Allowance and Trading Scheme (England) Regulations 2004 (as amended) which requires substantial changes to the way in which waste is managed.

- **The Integrated Pollution Prevention and Control (IPPC) Directive (96/61/EC) and PPC Regulations (2000) as amended** - The Integrated Pollution Prevention and Control (IPPC) Directive (96/61/EC) aims to protect the environment from pollution from industrial activities, including some waste facilities. The Best Available Techniques (BAT) concept is used to prevent, or where this is not practicable, reduce any emission to the air, water or land. The Directive also focuses attention on techniques to make best use of resources, raw materials and energy, to minimise waste and to prevent and reduce the impact of noise and odours. Revisions to this Directive are currently being considered, and these may include extending the requirement for PPC and BAT to a wider range of waste treatment facilities

Integrated Pollution Prevention and Control (IPPC) Directive is implemented in England through PPC Regulations (2000)

- **Hazardous Waste Directive (91/689/EEC)** - The Hazardous Waste Directive (91/689/EEC) includes a European-wide definition of hazardous waste and aims to ensure the correct management and regulation of such waste. Its objectives are to define which waste is hazardous and provide controls on its tracking, movement and management. It also aims to ban the mixing of hazardous waste with other types of hazardous waste or non-hazardous waste.

The Hazardous Waste Directive is implemented in England through the Hazardous Waste (England and Wales) Regulations 2005 and the List of Wastes (England) Regulations 2005. These set out the regime for dealing with hazardous waste, and includes requirements for producers of hazardous waste to register with the Environment Agency, and sets out documentation requirements.

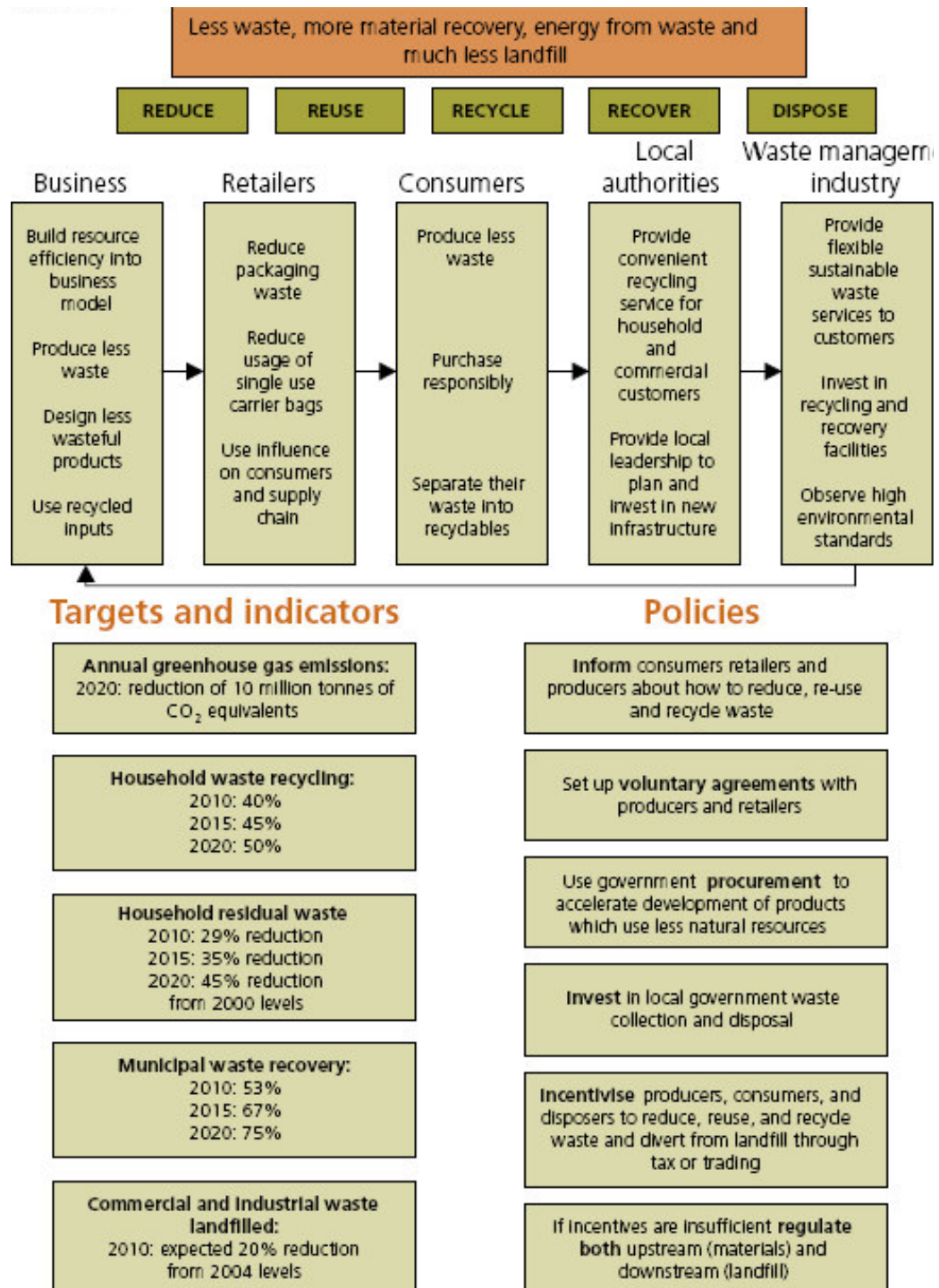
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- **Waste Incineration Directive (2000/76/EC)** - The Waste Incineration Directive (WID) (2000/76/EC) incorporates and extends the requirements of the 1989 Municipal Waste Incineration (MWI) Directives and the Hazardous Waste Incineration Directive, forming a single Directive on waste incineration. It aims to minimise impact to the environment and human health from the process of waste incineration, this impact could be a result of emissions to air, soil, surface and ground water. It applies to all new installations from December 2002, and to installations that already existed at that date from December 2005. This Directive covers both incineration and co-incineration plants and incorporates operational, control and monitoring requirements for substances released into the air.
- **Animal By-Products Regulation (2005)** - Authorities collecting biowastes including food wastes can no longer deal with materials through open-air treatments. If the collected biowaste includes meat the material must be treated through a two-barrier process. If collected waste includes kitchen waste, but attempts are made to exclude meat, the material must be treated using a single barrier process. The fact that the State Veterinary Service needs to approve facilities may add to lead-times for in-vessel facilities. There are restrictions and reporting requirements for the spreading on land of compost derived from kitchen wastes.
- **Thematic Strategy on the Prevention and Recycling of Waste (2005)** - This long-term strategy aims to help Europe become a recycling society that seeks to avoid waste and uses waste as a resource. As a first step, the Commission proposes revising the 1975 Waste Framework Directive to set recycling standards and to include an obligation for EU Member States to develop national waste prevention programmes
- **The End of Life Vehicles (ELV) Directive** - The End of Life Vehicles (ELV) Directive came into force in October 2000. This sets targets for the proportion of materials that must be recovered from vehicles at end of life and requires producers to manufacture new vehicles with a view towards being recycled. At present, there are about 2 million vehicles disposed of each year. Currently about 75% of the weight of each ELV is recycled (Environment Agency). The Directive requires 85% recovery, of which 80% is to be reused or recycled, by 2006; these targets rise to 95% and 85% respectively by 2015.
- **The Waste Electrical and Electronic Equipment (WEEE) Directive** - This Directive aims to reduce the waste arising from electrical and electronic equipment and improve the environmental performance of those involved in its production, distribution, and consumption. Challenging targets will be set to increase the recycling and recovery of different categories of appliance; it is not possible to identify with any certainty what sites and technologies might be required to achieve the Directive's targets.

National Policy

6. The essence of these key European Directives is reflected in national policy statements and strategies. These must be taken into account in the preparation of this DPD and are a major driver for its policies.
 - **Waste Strategy for England and Wales 2007** – The diagram below taken from the Waste Strategy for England 2007, published by Defra in May 2007 outlines the Government's key targets and indicators.

Figure AN1A – Extract from the Waste Strategy 2007



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Building upon the Waste Strategy 2000 (WS00), the 2007 strategy (WS07) reports any progress or additional targets to be met. The key objectives within WS07 are,

- Decouple waste growth from economic growth and place more emphasis on waste prevention and re-use.
- Meet and exceed the Landfill Directive diversion targets for biodegradable waste in 2010, 2013 and 2020.
- Increase diversion from landfill of non-municipal waste; and
- Increased recycling of resources and recovery of energy.

Higher national targets than for those outlined in WS00 have also been set for the recycling and composting of household waste and the recovery of municipal waste as shown below,

Table AN1.1 – Waste Strategy Targets

ACTION	By 2010	By 2015	By 2020
Recovery and composting of household waste	At least 40%	45%	50%
Recovery of municipal waste	53%	67%	75%

In addition to WS07, Planning Policy Statements set out overarching policies on the delivery of sustainable waste management through the planning system. Those of most relevance to the DPD are set out below.

- **PPS1 (Delivering Sustainable Development: Climate Change Supplement)** - Planning Policy Statement 1 (PPS1): Delivering Sustainable Development sets out the overarching planning policies on the delivery of sustainable development through the planning system.

The Planning and Climate Change supplement to PPS1 (2006) sets out how spatial planning should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences when planning for new development. The consultation forms part of a wider package of action being taken by the Department for Communities and Local Government (DCLG) to help deliver the Government’s ambition of achieving zero carbon development. The overarching theme of the document is that climate change is real and is happening now and an overwhelming body of scientific evidence makes it clear that human activity is changing the world’s climate and, as these changes deepen and intensify, there will be profound and rising costs for global and national prosperity, people’s health and the natural environment.

The Government’s intention is to move towards a common methodology for regions in monitoring and reporting on the expected carbon impacts of Regional Spatial Strategies (RSS) as soon as possible. The aim is for trajectories in different regions to be directly comparable. In the meantime, this PPS encourages regional planning bodies (RPBs), as part of their approach to managing performance on carbon emissions to produce regional trajectories for the expected carbon performance of new residential and commercial development.

Where emerging revisions to RSS or draft DPDs are inconsistent with the key planning objectives in Planning and Climate Change the DCLG expects authorities to put work in hand to ensure consistency before their adoption.

- **PPS10: Planning for Sustainable Waste Management** - The overall objective of Government policy on waste, as set out in the Strategy For Sustainable Development (Department for Environment, Food and Rural Affairs, March 2005, Securing The Future:), is to protect human health and the environment by producing less waste and by using it as a resource wherever possible.

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Through more sustainable waste management, moving the management of waste up the 'waste hierarchy' of reduction, reuse, recycling and composting, using waste as a source of energy, and only disposing as a last resort the Government aims to break the link between economic growth and the environmental impact of waste.

This means a step-change in the way waste is handled and significant new investment in waste management facilities. The planning system is pivotal to the adequate and timely provision of the new facilities that will be needed. PPS10 also states that positive planning has an important role in delivering sustainable waste management,

- Through the development of appropriate strategies for growth, regeneration and the prudent use of resources, and
- By providing sufficient opportunities for new waste management facilities of the right type, in the right place and at the right time.

Specifically, the key planning objectives state that regional planning bodies and all planning authorities should prepare and deliver planning strategies that,

- Help to deliver sustainable development through driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option but one which must be adequately catered for.
- Provide a framework in which communities take more responsibility for their own waste and enable sufficient and timely provision of waste management facilities to meet the needs of their communities.
- Help implement the national waste strategy and supporting targets are consistent with obligations required under European legislation and support and complement other guidance and legal controls such as those set out in the Waste Management Licensing Regulations 1994.
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment and enable waste to be disposed of in one of the nearest appropriate installations.
- Reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage competitiveness.
- Protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission.
- Ensure the design and layout of new development supports sustainable waste management.

Paragraph 11 of PPS10 states that Regional Planning Bodies should consider the need for additional waste management capacity of regional or sub-regional significance. The RSS should provide the strategic framework for the preparation of local development framework documents through identifying the waste management facilities required and their appropriate distribution across the region. Paragraph 12 goes on to state that this should include identifying the broad locations where major waste facilities should be accommodated.

Paragraph 16 states that:

'The core strategy of a waste planning authority should set out policies and proposals for waste management in line with the RSS and ensure sufficient opportunities for the provision of waste management facilities in appropriate locations including for waste disposal. The core strategy should both inform and in turn be informed by any relevant municipal waste management strategy. It should look forward for a period of at least ten years from the date of adoption and should aim to look ahead to any longer-term time horizon that is set out in the RSS.'

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Paragraphs 17 and 18 provide guidance on identifying land for waste management sites in Development Plan Documents which:

‘Should identify in development plan documents sites and areas suitable for new or enhanced waste management facilities for the waste management needs of their areas. Waste planning authorities should in particular - allocate sites to support the pattern of waste management facilities set out in the RSS in accordance with the broad locations identified in the RSS and allocate sites and areas suitable for new or enhanced waste management facilities to support the apportionment set out in the RSS’.

In doing so, waste planning authorities should:

- Be able to demonstrate how capacity equivalent to at least ten years of the annual rates set out in the RSS could be provided,
- Identify the type or types of waste management facility that would be appropriately located on the allocated site or in the allocated area, taking care to avoid stifling innovation in line with the waste hierarchy,
- Avoid unrealistic assumptions on the prospects, for the development of waste, and
- Management facilities, or of particular sites or areas, having regard in particular to any ownership constraint which cannot be readily freed, other than through the use of compulsory purchase powers’.

In terms of searching for suitable sites for waste management facilities, paragraph 20 states that waste planning authorities should:

- Look at opportunities for on-site management of waste where it arises.
- Identify a broad range of locations including industrial sites, looking for opportunities to co-locate facilities together with complementary activities.

Regional Waste Policy

7. The Draft Revised Regional Spatial Strategy incorporating the Secretary of States Proposed Changes represents the most recent regional policy on waste. The key policies are as follows.
8. Policy ENV13 of the RSS relates to the provision of waste management and treatment facilities to meet these targets. This states that waste management authorities should take the following into account when making final decisions on waste management facilities:
 - The capacity of treatment and recovery facilities (including recycling and energy from waste) to deal with municipal, commercial and industrial waste will need to double by 2020 in all sub-regions to provide the additional capacity identified.
 - Capacity to deal with hazardous waste will need to increase by over one third by 2020.
 - In the short term there is generally adequate landfill capacity but there may be need for new capacity to replace existing facilities, particularly in West Yorkshire, before 2020.
9. Authorities should take into account:
 - The split between the need to provide facilities to manage the final disposal and recovery / recycling of waste, and
 - The need to meet, and subsequently exceed nationally set targets for recycling and recovery, including those derived from the Landfill Allowance Trading Scheme. The Landfill Allowance Trading Scheme (LATS) was introduced in 2005 / 2006 as a mechanism to comply with European Union targets on the reduction of biodegradable waste sent to landfill. Each Waste Disposal Authority (WDA) is allocated a tradable landfill allowance. Permits can be bought from other authorities at a price dictated by market forces. The allowances permit each WDA to landfill a certain amount of biodegradable municipal waste within a specified year.

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WDAs may trade allowances for with other authorities, save them for future years or use some of its future allowances in advance. A fixed penalty of £150 per tonne is payable for each tonne of waste landfilled without a permit. Penalties become a reality if there are insufficient permits nationally to cover the total amount of waste landfilled.

10. If the UK as a whole fails to meet its EU targets for the diversion of biodegradable municipal waste, the European Parliament can impose fines of up to £500,000 a day. The UK Government has indicated that it may pass on fines to those local authorities failing to meet their landfill diversion targets.
11. Based on estimates of waste growth and recycling levels within the City, Leeds could have a shortfall in LATS permits by 2008 / 2009. If LCC fail to take action to meet these targets, financial penalties are estimated to be in the order of £178 million by 2020 if current levels of household waste disposed of to landfill continue. Meeting the targets through increased recycling and waste recovery is therefore a priority for LCC.
 - The contribution made by new and existing waste facilities and the anticipated lifespan of such facilities,
 - The provisions of policy E3 (the economy and employment land reviews),
 - Annual waste and waste facility monitoring data provided by the Regional Technical Advisory Body, and
 - Opportunities to provide treatment facilities for multiple waste streams.
12. Authorities should also consider the specific requirements arising from significant transfers of waste across the regional boundary and the likelihood of significant irregular arisings of hazardous waste from site regeneration / remediation projects during the plan period.
13. Liaison with neighbouring districts, the RTAB, Recycling Action Yorkshire and community stakeholders is required in order to consider any requirements arising from:
 - The need to establish an accessible network of civic amenity or other recyclates collection public 'bring' sites; and
 - The need to make provision for sites for new waste related businesses (either on a grouped 'park' or individual basis) to encourage their establishment.
14. In order to achieve a network of appropriate waste facilities which provide effective waste management in line with Local Authority annual waste tonnage allocations, annual monitoring criteria in the form of indicators and targets are identified.
15. Indicators are outlined as:
 - Adequate waste management facilities in the region.
 - Recycling and composting of household waste.
 - Recovery of municipal waste.
 - Landfill of biodegradable municipal waste.
16. Targets are outlined as:
 - Recycling of household waste - At least 40% by 2010, 45% by 2015 and 50% by 2020.
 - Recovery of municipal waste - 53% by 2010, 67% by 2015 and 75% by 2020; and
 - Landfill of biodegradable municipal waste - As set out in the Landfill Allowance Trading Scheme.
17. In addition to the above, Waste Planning Authorities should allocate sites to support the pattern of waste management facilities set out in ENV13 and the detailed capacity requirement as set out in Annex C in accordance with the locational guidance in ENV14. In doing so they should identify the type or types of waste management facility that would be appropriately located on the allocated site or in the allocated area, taking care to avoid stifling innovation in line with the waste hierarchy.

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18. Acceptable waste management technologies may include, for example, combined heat and power schemes, on-site thermal treatment and bio-digesters.
19. Policy ENV14 of the Yorkshire and Humber RSS outlines strategic locational criteria for waste management facilities. It states that the following principles should be considered in designating specific sites or areas where criteria based approaches will apply:
- Waste should be managed on the site where it arises, or if this is not possible, at the nearest appropriate location. Major sources of waste arising in rural areas should be treated locally unless specialised facilities are required.
 - Facilities should be located in accordance with the Core Approach and the proposed distribution of housing and economic growth.
 - In all areas, identification of sites for facilities should also take account of the following priority order.
 - Established and proposed industrial sites which have potential for the location of waste management facilities and the co-location of complementary activities, such as ‘resource recovery’ or ‘sustainable growth’ parks.
 - Previously developed land, including mineral extraction and landfill sites during their period of operation for the location of related waste treatment activities in sustainable locations.
 - Redundant farm buildings and their curtilages; and
 - One-off or non-process related hazardous waste generation from the clear up of contaminated sites should be treated on the basis of the following hierarchy,
 1. On-site treatment (for example bioremediation).
 2. On-site encapsulation.
 3. Off-site treatment.
 4. Off-site encapsulation.
20. It is envisaged that this will lead to the development of a network of new waste facilities which have been appropriately located and which will contribute to meeting the following targets,
- 100% of new waste developments in compliance with locational criteria in ENV14, and
 - 100% of waste planning authorities have LDFs which allocate sites for a sufficient mix of waste facilities in line with policy ENV14.
21. Policy ENV14 therefore sets out broad strategic locational criteria for waste management facilities, which should be considered when WPAs choose site-specific site allocations. The prime strategic role for the Plan can be summarised as helping to provide ‘sufficient opportunities for new waste management facilities of the right type, in the right place and at the right time.’
22. On this basis, the Plan should protect sensitive areas (such as green belts) but recognise locational needs. In general sustainability terms, the reuse of existing buildings should be encouraged where practical. In the case of new buildings, it has been demonstrated by the waste industry that innovative and high quality design is possible. Local Planning Authorities should seek to assure that proposals for new, refurbished or extended waste facilities represent current good design practices.

Waste Policy in Leeds

- **Integrated Waste Strategy for Leeds 2005-2035** - The Council has a duty to produce and implement a Waste Strategy which sets out how the Council will manage, reduce and recover value from waste. In Leeds, this takes the form of the *Integrated Waste Strategy for Leeds 2005 – 2035* (2006) (IWS) which focuses primarily, but not exclusively, on municipal waste i.e. the waste the Council collects from households within the District.

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The Integrated Waste Strategy for Leeds 2005-2035 (IWS) was adopted by Leeds City Council (LCC) in October 2006. This followed a six month period of extensive stakeholder and public consultation between 19 December 2005 and 31 May 2006. It is estimated that the people of Leeds were represented with over 800,000 opportunities to participate in this exercise.

The Strategy has also undergone a Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) and sets out the statutory National and European targets for improving recycling and recovery rates and reducing reliance on landfill. The timescale of the IWS is considerably longer than the plan period for the emerging Regional Spatial Strategy (RSS) for Yorkshire and Humber which has an estimated review date of 2021. Since the adoption of the IWS, the approach to securing a more sustainable approach to the management of waste streams has been under continuous review.

The vision for Leeds provided by the IWS is to create:

'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'.

The vision specifically promotes the encouragement of major public-sector organisations such as the council, universities, health service and private businesses to reduce waste, limit pollution and to use natural resources much more efficiently in order to meet national and regional targets on waste. This will be achieved through:

- Providing a greater range of support and facilities in local neighbourhoods such as recycling banks, kerbside collection of recyclable materials and home composting of garden and kitchen waste.
- Cleaning up land which is polluted.
- Encouraging developers and the construction industry to make new buildings more energy-efficient and reduce the amount of waste and pollution they produce; and
- Breaking the link between economic growth and increased waste by setting targets and steps to reduce all types of waste.

The City Council has already developed a reference project for achieving its recycling and recovery targets as it needs to procure a new waste contract to deliver the new facilities required. To ensure the delivery and procurement of this contract, work on developing the waste strategy commenced prior to the DPD.

The Council has undertaken an appraisal of a wide range of different options for increasing the range of recyclable and compostable materials collected at the kerbside, and taking into account performance, cost, environmental impact and public acceptance issues. Based on this information, the following range of optimised collection and education initiatives is proposed for Leeds.

- Garden waste collection (fortnightly),
- Glass collection (fortnightly),
- Increased frequency of co-mingled recycling kerbside collections (fortnightly),
- Food waste collection (weekly),
- Reduced frequency of residual waste collection where weekly food waste collections introduced (fortnightly),
- Increased range of plastics collected in kerbside recycling bins,
- Increased range of paper and card collected in kerbside recycling bins,
- Increased roll-out of kerbside recycling collections,
- Enhanced participation in recycling through increased education, and
- Introduction of compulsory recycling.

The introduction of the optimised recycling initiatives set out above is expected to enable Leeds to reach the specific target set out in the Integrated Waste Strategy for Leeds to achieve a recycling rate of beyond 50% by 2020.

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These proposals were agreed by the Council's Executive Board on 11 September 2007. Table AN1.2 below shows how the reference project which has been developed performs against national recycling targets.

Table AN1.2 – National and Reference Project Recycling Targets

Year	Waste Strategy for England 2007 %	Leeds City Council Target %
2009/10	40	33.42
2014/15	45	49.35
2019/20	50	52.06

In terms of the Council's commitment to tackling its current reliance on landfill, the Waste Strategy sets a target to achieve the recovery of value from 90% of household waste by 2020.

- **The Development Plan for Leeds** - The Adopted Plan is the Revised Unitary Development Plan Review which was adopted in 2006 and carries forward a number of 'saved' policies. These will be valid for three years but will, eventually be superseded by this DPD.

The current waste policies consist of three overarching policies and a separate suite of site specific and development control policies (See Annex 2).

As part of the process of making the new Development Plan Frameworks required by the Planning and Compulsory Purchase Act 2004 described above, Leeds City Council has already started work on the required Core Strategy. This is currently being consulted on and may well be subject to alterations as a result of the consultation responses. However, it raises two issues in relation to natural resources and waste management which reflect the IWS and, to some extent, the Zero Vision for waste. These are,

Leeds needs to minimise the amount of waste arising. This should be undertaken by:

- a) Encouraging the treatment of waste at the highest possible level of the waste hierarchy,
- b) Encouraging the processing of waste to add value and avoid landfill.

It is likely that Leeds will need to identify a range of locations (depending on their type and scale) for waste management facilities. Where should such facilities be located?

- a) Within existing residential areas and town and district centres
- b) In accessible commercial / industrial areas
- c) In accessible countryside / rural locations

Source; Leeds Draft Core Strategy Issues and Options

This DPD must demonstrate conformity with national and regional policy as well as the adopted Development Plan and the emerging Core Strategy of the Leeds Development Framework.

CURRENT AND FUTURE WASTE ARISING IN LEEDS

- 23. To identify the waste management requirements within Leeds City a number of assessments need to be made.
 - Identify baseline waste arising

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- Identification of current volume of was managed in the City
- Identification of current facilities available and capacity
- Projection of future waste arisings
- Identification of future capacity requirements

Baseline Waste Arisings

24. A number of sources were used to provide a baseline set of data for waste arising within Leeds City. It is emphasised that a comprehensive set of data covering all waste streams for the same year is not readily available. The baseline assessment therefore considers the best available sources of data to present an overall baseline for the City. It is also emphasised that additional analysis is required to fully consider each of the data sources to bring all baseline information up to the same base year. Where further data evaluation or review is required this is highlighted in the sections below.
25. The following list details the relevant sources that have been considered but does not as yet constitute an exhaustive review of data on waste arisings in Leeds.
- Proposed Government Office Changes to the Regional Spatial Strategy;
 - Leeds City Council;
 - Yorkshire Water; and
 - Environment Agency.
26. The waste streams that have been considered are:
- Municipal Solid Waste (MSW);
 - Commercial and Industrial Waste (C&I);
 - Construction, Demolition and Excavation waste (C,D&E);
 - Hazardous Waste;
 - Sewage Sludge;
 - Agricultural Waste; and
 - Mining & Quarrying Waste.
27. Further work is ongoing on determining the current capacity and future requirements for Leeds. Set out below is the information which is currently known. The table below presents a summary of the baseline waste arisings in Leeds for 2005/06 for each sector.

Table AN1.3 – Baseline Waste Arisings

Waste Stream	2005 / 2006 Tonnage (000s tonnes)
MSW	366
Commercial and Industrial Waste	To be updated
Construction, Demolition and Excavation Waste	To be updated
Mining and Quarrying Waste	To be updated
Hazardous Waste	To be updated
Agricultural Waste	To be updated
Sewage Sludge Waste	To be updated
TOTAL	

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28. The Government Office for Yorkshire and Humber commissioned Enviro Consulting to provide regional forecasts of waste arisings. The report was completed in June 2007 and was used to inform the Proposed Government Office Changes to the Regional Spatial Strategy. This forms the latest available published data on current waste arisings and estimates of capacity and forecasts of future arisings for the Region. Estimates for Leeds are as follows,

Table AN1.4 – Municipal Waste Arisings Forecasts and Future Capacity from RSS

	2005/2006	2010	2015	2021
Forecast Municipal Waste Arisings				
Tonnes to be managed	366	380	399	424
Tonnes to be recycled	99	152	179	212
Minimum recycling target	27%	40%	45%	55%
Capacity requirements to recycle, recover, treat and dispose of Municipal Waste				
Treatment capacity required (includes recycling and treatment of residual waste)	99 (target 27%)	201 (target 53)	267 (target 67%)	318 (target 75%)
Landfill capacity required	267 (target 73%)	179 (target 47%)	132 (target 33%)	106 (target 25%)

Source: RSS 2007: Table C1: All figures indicate 000 tonnes per annum

29. The amount of household waste to be managed is forecast to increase by 58 tonnes from the base date of 2005 / 2006 to 424 tonnes per year by 2021. However, reducing the reliance on landfill provision means that the amount of municipal waste which needs to be recycled and treated through other mechanisms will need to increase significantly. By 2021, the balance between recycling and treatment facilities and landfill provision will be 75% treatment and 25% landfill.
30. The amount of waste produced will have a major impact on the type and number of facilities required to manage the future growth of the City. As part of the IWS, the Council commissioned a detailed model of future household waste arisings. Although this is based on achieving a reduction in waste production, it also reflects a significant growth in the number of new households, a scenario which was recently confirmed in emerging RSS. Therefore, overall municipal waste is still forecast to rise between 2007 / 2008 and 2037 / 2038.

Table AN1.5 – National and Reference Project Recycling Targets

Year	Municipal Waste Arisings (Tonnes Per Annum)
2003/2004	367,892 (actual)
2007/2008	377,534
2009/2010	390,503
2012/2013	406,622
2014/2015	416,610
2019/2020	439,693
2037/2038	505,746

Source: Leeds Integrated Waste Strategy

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31. Figure AN1B below illustrates the municipal waste forecast and compares it to if current growth rates continued at the same rate as forecast based on assumptions provided by Defra.

Figure AN1B – Municipal Waste Forecast

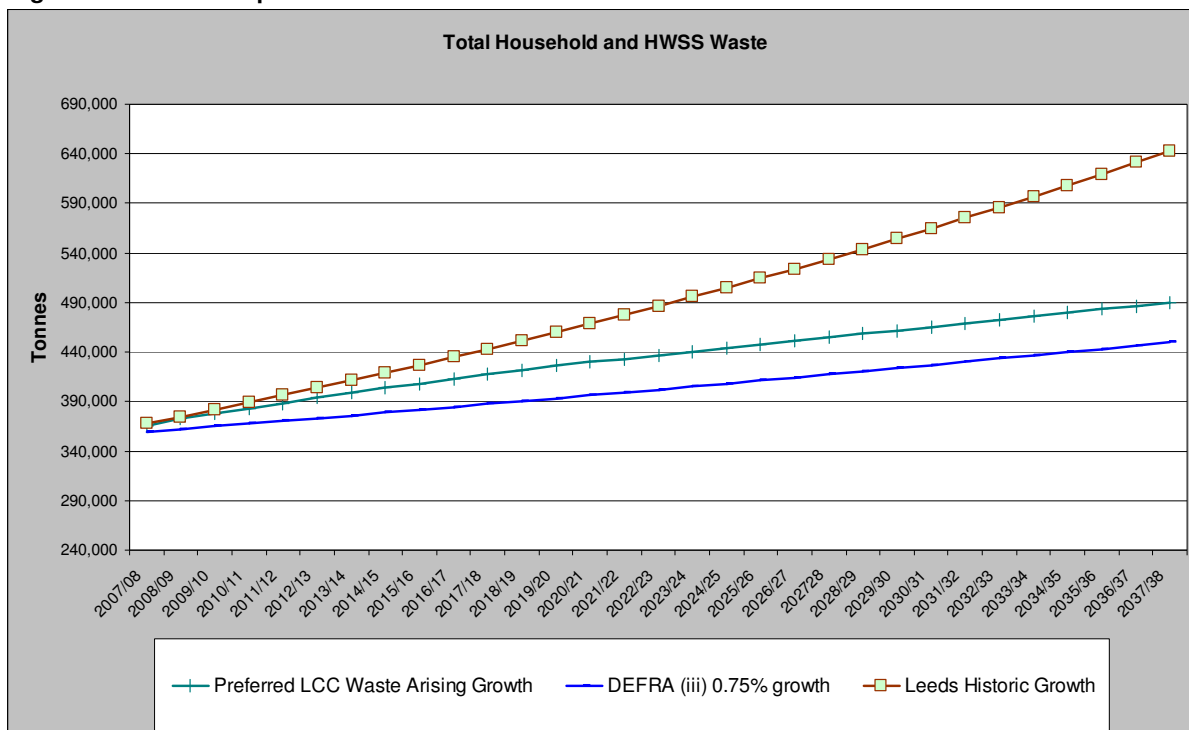


Table AN1.6 – Forecast and Capacity of Commercial and Industrial Waste Arisings

	2005/2006	2010	2015	2021
Forecast Commercial and Industrial waste arisings				
Tonnes to be managed	1,193	1,195	1,217	1,245
Capacity to recycle, recover, treat and dispose of industrial wastes				
Landfill capacity required at 33% of	394	394	401	411
Treatment capacity required at 67%	799	800	815	834

Source: RSS 2007 Table C2: All figures indicate 000 tonnes per annum

32. The RSS sets out existing capacity and shortfalls of existing capacity by sub region. The figures for West Yorkshire are,

Table AN1.7 – Future Capacity Requirements for West Yorkshire

Current landfill capacity for MSW and C&I		Treatment and Recovery Capacity Required for MSW and C&I Waste			Capacity Shortfall		
Current Landfill Capacity	Years supply	Total Annual Capacity Required - 2010	Total Annual Capacity Required 2015	Total Annual Capacity Required 2021	Total Treatment and Recovery Capacity Shortfall (kt/a)		
					2010	2015	2021

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Current landfill capacity for MSW and C&I		Treatment and Recovery Capacity Required for MSW and C&I Waste			Capacity Shortfall		
1,794	9	2,568	2,807	3,003	-1148	-1387	-1584

Source: RSS Table C4: RSS All figures indicate 000 tonnes per annum

33. In addition to Municipal wastes and Commercial and Industrial (C&I) wastes a further waste stream must be taken into consideration. Construction, Demolition and Excavation Waste (CDEW) has previously been used for landfill, restoration and daily cover on landfill sites accepting municipal wastes.
34. As it is rarely subject to the Waste Management Licensing regime precise data as to the amount of CDEW going to landfill or being processed and reused has not been available. However, this waste stream is increasingly recognised as a resource which must be recovered and utilised to best effect. The need to capture data relating to it is also recognised. For example, the Annual Monitoring Report 2005 for Leeds estimates that recycled materials produced some 250,000 tonnes of recycled aggregates but warns that this figure could be subject to a wide margin of error
35. Estimates of CDEW recycled by crushers and / or screeners used or disposed of at landfill sites by spreading on license exempted sites within the West Yorkshire Sub Region as follows,

Figure AN1C – Survey of CDEW Arisings

Table A11.7: Regional estimates of CDEW recycled by crushers and/or screens, used/disposed of at landfills, and spread on Paragraph 9A(1) and 19A(2) registered exempt sites in 2005 (tonnes)

English Region and Sub-Region	Yorkshire & the Humber: West Yorkshire			
Adjusted estimate of population of recycling crushers	30			
Estimated production of recycled graded aggregate (tonnes)	1,235,946			
Estimated production of recycled ungraded aggregate (tonnes)	571,512			
Estimated production of recycled soil (excl. topsoil) (tonnes)	234,408			
Estimated tonnage of unprocessed CDEW entering licensed landfills, and its use / fate				
	Engineering	Capping	Waste	Total
Clean hard C&D waste	53,386	0	60,714	114,100
Contaminated hard C&D waste	300	0	2,802	3,102
Clean excavation waste	96,087	284,691	327,784	708,562
Contaminated excavation waste	28,191	0	92,545	120,736
Clean 'mixed' CDEW	13,271	661	116,204	130,137
Contaminated 'mixed' CDEW	48	0	16,718	16,766
Other	91,529	0	46,577	138,106
Total	282,812	285,353	663,344	1,231,508
Estimated weight of waste materials (mainly excavation waste) used on Paragraph 9A(1) and 19A(2) registered exempt sites (tonnes)	189,824			
Total estimated arisings of CDEW in 2005 (tonnes)	3,463,198			

Source: Survey of arisings and Use of Construction, demolition and Excavation waste as Aggregate in England 2005. Capita Symonds for the ODPM Published 2007-11-20

36. Hazardous waste is a generic term for waste which include one or more of the following,
 - Agricultural and food production,
 - C&D waste and asbestos,
 - Healthcare,
 - Inorganic chemical processes,

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- Leather and textile production,
- Metal treatment and coating process,
- MFSU paints, varnish, adhesive and inks,
- Mining and minerals,
- Municipal and similar commercial wastes,
- Unspecified,
- Oil and oil/water mixtures,
- Organic chemical processes,
- Packaging, cloths, filter materials,
- Petrol, gas and coal refining/treatment,
- Photographic industry,
- Shaping/treatment of metals and plastics,
- Solvents,
- Thermal process waste (inorganic),
- Unclassified,
- Water/water treatment and water industry, and
- Wood and paper production.

37. The following table gives the total amounts of Hazardous waste generated within the District for the period 1999 to 2003. This shows that the amount of Hazardous waste being generated is increasing.

Table AN1.8 – Hazardous Waste Arisings Leeds 1999 - 2003

Year	Grand Total (in tonnes)
1999	85234.9
2000	146193.7
2001	117015.4
2002	103619.1
2003	102744.4

Source: Environment Agency Waste Data for Yorkshire and Humber Region

Current Capacity of Waste facilities

38. Further modelling work is being undertaken to identify the number, type and options which will be necessary to meet future waste management needs. The current waste management capacity is set out below.

Table AN1.9 – Current Landfill Capacity

Landfill Designation	Existing Capacity 2002 / 2003
A1 – Co-disposal	9,105,931
A2 - Other landfills taking special wastes	0
A4 - Household, commercial and industrial	0
A5 – Landfills taking non-biodegradable wastes	324,300
A6 - landfill taking other wastes	650,000
A7 – Landfills taking factory curtilage (industrial waste)	6,000,000
Total	16,080,231

Source Environment Agency Remaining Landfill Capacity – March 31st 2003 Yorkshire And Humber Region

Waste Treatment Capacity

Table AN1.10 – West Yorkshire Throughput (tonnes/year) of facilities 2002/2003

A10 - In-House Storage Facility	A11 - Household, Commercial & Industrial Waste Transfer St	A12 - Clinical Waste Transfer Station	A13 - Household Waste Amenity Site	A14 - Transfer Station taking Non-Biodegradable Wastes	A15 - Material Recycling Treatment Facility	A16 - Physical Treatment Facility	A17 - Physico-Chemical Treatment Facility
333	1,490,857	4,734	195,348	22,019	509,261	46,259	142,363

Table AN1.11 – West Yorkshire Throughput (tonnes/year) of facilities 2002/2003

A18 - Incinerator	A21 - Chemical Treatment Facility	A22 - Composting Facility	A23 - Biological Treatment Facility	A24 - Mobile Plant	A8 - Lagoon	A9 - Special Waste Transfer Station	Total throughput in sub-region
51	28,353		9,594	5,926	536,020	47,330	3,038,448

Source: Land Use Consultants/SLR, YORKSHIRE & HUMBER REGIONAL TECHNICAL ADVISORY BODY: WASTE FACILITY STUDY, DRAFT FINAL REPORT

MINERALS AND AGGREGATES

Introduction

39. The significant minerals produced in the Leeds District are sand and gravel, clay for brick making and coal which is mined by opencast methods in the south-eastern area of the District. It is the role of the mineral planning system to provide the land use planning framework through which the necessary development of these finite and valuable resources can be planned for and provided. In so doing, it is vital that a balance is struck between the winning and working of the minerals, the protection of the environment and the amenity of local communities. Therefore, it is important that the working of minerals is done in a sustainable way. This means that extracted minerals must be put to their best possible use, that mineral waste is minimised and that the role of recycled and substitute materials is maximised in meeting society's overall needs.
40. Consequently, this report
 - Explains the policy context in which the future planning of minerals development should take place,
 - Examines the need for Leeds to respond to the type, quantities and location of minerals required, and
 - Tries to balance the needs of minerals development with the protection of the natural and built environment and the quality of life enjoyed by the people of Leeds.
41. The national land use planning framework for minerals is set by Minerals Planning Statements (MPS) and Minerals Planning Guidance (MPG), by the Regional Spatial Strategy (RSS) for Yorkshire and Humber (RSS 12) and at the local level by the Leeds Unitary Development Plan Review 2006.
42. The Planning and Compulsory Purchase Act 2004, requires the adoption of Local Development Frameworks (LDF) to replace the previous system of Development Plans.
43. This system is designed to allow for production of a portfolio of Development Documents including a Core Strategy, topic based Development Plan Documents (DPD) and Supplementary Planning Documents (SPD) as and when they are required to ensure a faster and more efficient plan making process which has the potential to respond flexibly to change.

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44. Leeds City Council has decided to produce a Natural Resources DPD (NRDPD) in accordance with the Local Development Scheme and this report deals with the minerals issues that will form part of it.
45. It will be important to ensure that the DPD's policies and proposals are the best available in the light of changes in planning and environmental legislation and relevant information on mineral production within the District and its contribution to Regional provision. The DPD will cover the plan period up to 2021 and beyond.
46. The Issues Report and this accompanying appendix is the first stage in producing the minerals planning policies for inclusion in the new DPD. This background report will be used to stimulate debate and ideas about the future of mineral planning in the District and will generate comments to help the Council formulate its policies.
47. As part of the new planning system, there will be an ongoing sustainability appraisal of the way in which the Council decides upon its minerals policies. This will,
 - identify related plans and programmes,
 - identify sources of existing and future baseline information,
 - propose environmental and sustainability objectives for the NRDPD;
 - summarise the key sustainability issues,
 - establish a sustainability framework,
 - assess the compatibility of the sustainability objectives, and
 - provide methodologies for assessing significant effects.
48. Government guidelines on the preparation of development frameworks emphasise the importance of,
 - Links to other important policy documents such as Community Strategies,
 - Opportunities for community involvement,
 - Focusing on the most significant issues,
 - Keeping documents as clear and as short as possible, and
 - Efficient production with minimal delays.
49. There will be ongoing contributions from stakeholders and interested parties in the development of the NRDPD. Consultation will take place at each key stage in the process over the next two years in accordance with the processes set out in Leeds Statement of Community Involvement adopted in February 2007.

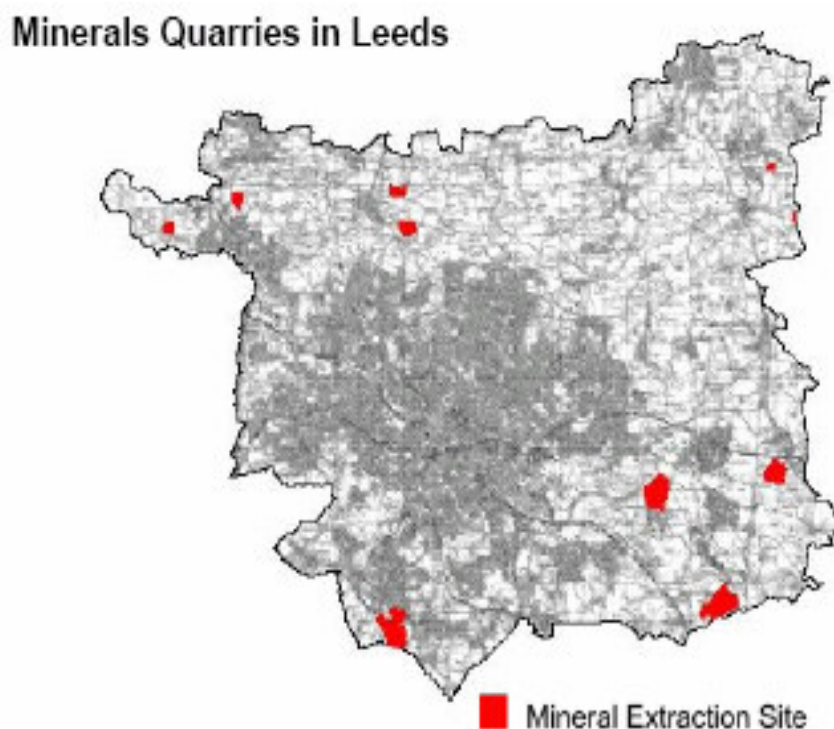
Background

50. The major mineral deposits found in Leeds are sandstone, sand and gravel, and coal. There are also deposits of clay and of limestone. In a typical year Leeds has fourteen working quarries, two opencast coal sites although only one of these is usually active at any one time, and eight secondary aggregate sites. Currently minerals are being extracted from Methley, Arthington, Blackhill, Britannia, Highmoor, Howley Park, Moor Top, Odda Lane, and Peckfield.
51. Within the district two principal areas have been identified for the extraction of sand and gravel. These are within the Lower Aire Valley and the Wharfe Valley. Although there are significant reserves within the District it should be noted that the growth of urban centres over time has resulted in sterilisation of resources. Leeds currently recycles 100% of used road stone products to reduce environmental impacts associated with quarrying. 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 each contain large factories where some 80 million facing bricks are produced each year, making Leeds self-sufficient in bricks.
52. 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.

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53. 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. 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.
54. 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 undoubted potential to create prolonged and cumulative adverse environmental effects.

Figure AN1D – Mineral Quarries in Leeds



Source: BGS Mineral Extraction Sites

Table AN1.12 – Summary of Existing Minerals Sites Remaining Permitted Reserves and Production Rates

Quarry Name	Mineral Type	Principal Product	Address	Area (unit?)	Reserves (t)	Rate (t)/annum
Arthington Quarry	Sandstone	Building sand	Black Hill Road, Arthington, Otley	7	>100,000	< 50,000
Blackhill Quarry	Sandstone	Building sand and stone	Kings Road, Bramhope, Leeds	7.5	< 100,000	< 50,000
Brittania Quarries	Sandstone	Building stone and aggregate	Rein Road, Morley, Leeds	7.5	> 100,000	> 50,000

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Quarry Name	Mineral Type	Principal Product	Address	Area (unit?)	Reserves (t)	Rate (t)/annum
Howley Park Quarries	Clay and Sandstone	Bricks and building stone	Quarry Lane, Woodkirk, Wakefield	54	> 100,000	> 50,000
Moortop Quarry	Sandstone	Building stone	Moor Lane, Guiseley, Leeds	3.5	> 100,000	< 50,000
Odda Lane	Sandstone	Building stone	Odda Lane, Guiseley, Leeds	5	< 100,000	< 50,000
Methley Quarry	Sand and gravel	Sand and gravel	Green Lane, Methley, Leeds	101	> 100,000	> 50,000
Fir Green Quarry	Sand	Sand and gravel	Bar Lane, Clifford, Leeds	<1	< 100,000	< 50,000
Peckfield Quarry	Limestone	Aggregate and lime	Ridge Road, Micklefield, Leeds	25	> 100,000	> 50,000
Highmoor Quarry	Limestone	Building stone	Warren Lane, Toulston, Tadcaster	2	> 100,000	< 50,000
Swillington Brickworks	Clay	Bricks	Leeds Road, Swillington, Leeds	20	> 100,000	> 50,000

Source Leeds Initiative: Environmental Report

National and Strategic Minerals Policy Context

55. Planning for the supply of minerals has a number of special characteristics,
- Minerals can only be worked where they naturally occur, so locational options for the economically viable extraction of minerals may be limited,
 - Working is a temporary use of land, although it often takes place over a long period of time,
 - Working often has adverse environmental effects that can be mitigated but not wholly eliminated,
 - Following working, the land should be restored, to make it suitable for beneficial after-use and to avoid dereliction,
 - The extraction of minerals has been held by the Courts to be a continuous process of development, long-term monitoring is therefore a requirement, and
 - Mineral working is essentially a physical process and the application of conditions to mineral permissions is the primary means of environmental control.
56. Guidance on mineral planning is set out in a number of national and regional documents.

National Planning Policies

57. National policies for minerals planning in England are set out in Minerals Policy Statements (MPS) and Minerals Planning Guidance (MPG). MPS1 (Planning and Minerals), and accompanying Good Practice Guidance is the most important policy document and sets out the key overarching policies and principles which the Government expects Mineral Planning Authorities (MPAs) to follow when preparing minerals DPDs and in considering applications. MPS2 (Controlling and Mitigating the Environmental Effects of Minerals Extraction in England) sets out the policies and considerations for controlling and mitigating the environmental effects of mineral extraction. The MPSs are replacing existing advice contained in MPGs.
58. The Government's objectives for minerals planning which are set out in MPS1 are,
- to ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction,
 - to conserve mineral resources through appropriate domestic provision and timing of supply,
 - to safeguard mineral resources as far as possible,
 - to prevent or minimise production of mineral waste,
 - to secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals,
 - to protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in exceptional circumstances,
 - to secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage,
 - to maximise the benefits and minimise the impacts of minerals operations over their full life cycle,
 - to promote the sustainable transport of minerals by rail, sea or inland waterways,
 - to protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long-term potential of land for a wide range of after-uses,
 - to secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection legislation, and
 - to encourage the use of high quality materials for the purposes for which they are most suitable.
59. MPS1 sets out national policies for minerals planning. Those of most relevance to Leeds are set out in Appendix 2. MPS1 also requires the Council to make provision for the sub-regional apportionment of the current National and Regional Guidelines for land-won aggregate in the emerging RSS. This provision should take the form of specific sites, preferred areas and / or areas of search. The Council is required to maintain a landbank of at least 7 years for sand and gravel and 10 years for crushed rock.
60. MPS1 includes ancillary policy objectives for building and roofing stone. These seek to encourage re-use of building and roofing stone and to ensure that where there are reserves of stone which are scarce in terms of its technical properties and / or aesthetic characteristics these should be safeguarded and used for the conservation and preservation of historic monuments, buildings and areas within the context of the requirement to protect areas of designated landscape, nature conservation and historical interest. However, the primary building materials used in Leeds consist of clay based products.
61. In terms of on-shore oil and gas development, Annex 4 of MPS1 sets out government policy on planning control of land-based exploration, appraisal, development and extraction of oil and gas (including gas from coal) and requires MPAs to include policies that distinguish clearly between the three phases of oil exploration, appraisal and production and identify any environmental and / or other constraints on production and processing sites. It also makes reference to underground storage of natural gas.

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62. However, there is no provision within the planning system to set limits for the share of total energy or electricity supply to be met from different fuels. It is commonly agreed that conventional UK off-shore oil and gas production will decrease significantly and by 2020 the UK is likely to be importing around three quarters of its primary energy needs. The aim is therefore to maximise the potential of the UK's reserves of energy minerals in an environmentally acceptable manner.
63. MPS6 (2003) sets out national guidance on aggregates provision in England for the period 2001 to 2016 inclusive.
64. Of those MPSs most relevant to the Leeds NRDPD, MPS2 provides advice on those aspects of the development control system of particular relevance to minerals and on the preparation and determination of individual planning applications. MPS 3 deals with Coal Mining and Colliery Spoil Disposal; MPG5 provides advice on the exercise of planning control with respect to stability in surface mineral workings and tips, and on good practice in the design, assessment and inspection of excavated slopes and tips. MPG7 deals with policies, consultations and conditions which are relevant to achieving effective reclamation of mineral workings. MPG11 provides advice on how the planning system can be used to keep noise emissions from surface mineral workings within environmentally acceptable limits without imposing unreasonable burdens on minerals operators.

Regional Planning Policies

65. Regional planning bodies have responsibility for preparing, reviewing and monitoring Regional Spatial Strategies (RSSs). When the current review of the Yorkshire and Humber RSS is adopted, it will provide the strategic spatial framework within which Local Development Frameworks, including Minerals and Waste Development Frameworks at county level and DPDs at unitary level can be prepared.
66. The region has extensive reserves of aggregate minerals which are worked commercially to supply the construction industry. Sand and gravel is present in glacial and alluvial deposits in the lowland areas and, based on MPS6, the RSS apportions the production levels to MPAs in the Region,
67. While there are major environmental impacts associated with mineral extraction, they are nonetheless an important component of the Region's economy. The main thrust of Policy ENV4 is therefore to maximise the use of secondary aggregates before extracting primary material but it clearly recognises the Region's needs to ensure a sufficient supply to meet its needs.

UDP Policies

68. The essence of the adopted UDP Mineral Policies for Leeds is to balance the national need to obtain and provide fuel and building materials against the need to protect the District's environment from the adverse effects that mineral exploitation can create if not properly controlled and monitored.
69. This is done through a mixture of site and area specific policies and a comprehensive range of development control policies.

Needs Assessment

70. A full Needs Assessment must be undertaken to inform the Issues and Options Report and this will need to consider forecasts to 2016 and forward to 2021, plus appropriate landbank periods thereafter, in respect of aggregate minerals. This is usually a relatively straight forward arithmetical exercise but, due to confidentiality constraints imposed on published information for West Yorkshire there is not a complete set of published data relating specifically to Leeds. In the absence of a pre production survey of operators within the area, assumptions have been made based on information contained within,

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- The RSS baseline documents,
- Annual Monitoring Reports for Leeds and adjacent MPAs within West Yorkshire, and
- Yorkshire and Humber Regional Aggregates Working Party (WYRAWP) Annual Report 2005.

71. More detailed information has been requested from the Leeds Minerals and Waste Department and will be provided in the near future. Due to difficulties with the nature and intricacies of building stone supply it has not been possible to produce forecasts for the likely level of supply through the DPD period.
72. It is not appropriate for the DPD to seek the same level of control over supply targets and output limits for energy minerals. The following sources of information have been used:-
- Aggregates Monitoring Survey 2004,
 - MPG6 new national and regional guidelines for aggregates 2001 – 2016, June 2003,
 - Minerals information gathered during the RSS Review 2006,
 - Monitoring Report 2006, and
 - Regional Aggregates Working Party Report 2005.

Baseline Aggregates Forecasts

73. It is assumed that in the period up to 2016 the Yorkshire and Humber Region will require,
- 73 mt land-won sand and gravel, and
 - 220 mt land-won crushed rock.
74. This assumes additional arisings of,
- 3 mt marine sand and gravel, and
 - 128 mt alternative materials.
75. Sub regional apportionment of aggregates by the Yorkshire and Humber RSS requires West Yorkshire to make provision for the following for the period up to 2016.
- 5.5 mt of land won sand and gravel;
 - 17.8 mt of crushed rock;
76. As at the end of 2004, there were sufficient permitted reserves of crushed rock within the Region to meet the guideline figures. Sales for the West Yorkshire Sub Region amounted to 1.2Mt in 2005. Reserves within West Yorkshire as at end of 2005 were estimated to be 42.8Mt with a sub regional apportionment of 1.11Mtpa this gives a landbank figure of 38.6 years.
77. Although there are reserves of limestone and sandstone (crushed rock) in the Leeds district, the resource is not of sufficiently high quality to create a demand for them as construction materials.
78. Annual sand and gravel aggregate and non aggregate sales figures for the Region have varied slightly for the period 2000 to 2005, but have now fallen to the 2000 figure of 4.7Mt. Around 86% of sales were reported as being sold to destinations within the Region and some 0.5Mt of the total figure is provided jointly by West and South Yorkshire. It should be noted that there are only two operating sites in West Yorkshire and these are known to have only limited permitted reserves. The Leeds Annual Monitoring report for 2006 discloses that production of primary land won aggregates amounted to some 755.99 tonnes during the monitoring period.
79. Due to confidentiality constraints landbank figures for West Yorkshire were not disclosed in the 2005 Yorkshire and Humber Regional Aggregates Working Party Report 2005. However information relating to the rest of the Region contains significant factors.

80. In North Yorkshire the landbank of sand and gravel at the end of 2005 at southward distribution sites has fallen to below the required 7 years and, whilst the landbank at sites in Doncaster is almost 13 years, this is made up of predominantly soft sands which are not suitable for concrete production. These factors, together with the low level of reserves in West Yorkshire, highlight the need to develop the second Phase of the Sand and Gravel Study commissioned by the Regional Planning Body and being prepared by the British Geological Society to identify resources and sites which are thought to be capable of producing concreting sand and gravel.

Building Stone

81. It has not been possible to produce an assessment of future needs for building stone in Leeds with any confidence that would lead to realistic forecasts. The prediction of future requirements and matching these to supply is not a simple arithmetic exercise (as in the case of aggregates), as several key variables, unique to building stone production are present. These include specific stone types being reserved for particular repair and maintenance jobs on individual buildings. Also, a high percentage of wastage in producing dimension stone products can occur, and sudden changes in the variability of the deposit that make adjacent areas unsuitable are common.

Energy Minerals

82. Coal is present in the Leeds District and there are active opencast operations across the south and south east of Leeds. However the areas free of surface buildings, rivers, railways etc are few and usually not very large to be of interest to extraction companies. Some areas already opencasted could be reworked economically now the contract price for coal is quite high. MPG3 (Coal Mining and Colliery Spoil Disposal – Published 1999) introduces a presumption against opencast coal development and applies a five point test of acceptability. This test includes an assessment of the environmental acceptability of individual proposals and whether or not there are local or community benefits which outweigh the effects of the proposal on the environment.
83. A current application at Ledston for 1 million tonnes of coal and K200 tonnes of limestone and sandstone, (mostly the former) is currently under consideration by the Council.

Recyclables

84. Construction, Demolition and Excavation wastes (CDEW) provide a valuable source of materials that may be used in addition to primary aggregates. The report 'Survey of Arisings and Use of Construction Demolition and Excavation Waste as Aggregate in England in 2003' was published by the ODPM in October 2004. This gave estimates of recycled aggregate and soil in England in 2003. The regional estimate for Yorkshire and Humber was 4.44mt +/-14% for recycled aggregate and 0.64mt +/- 19% of recycled soil giving a total figure of 5.08mt +/- 13%.
85. A follow up Survey entitled 'Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005: Construction Demolition and Excavation Wastes' undertaken by Capita Symonds Ltd for the DCLG was published in February 2007. This report estimates arisings and use as aggregate of CDEW in 2005 within the Yorkshire and Humber region to be 5.25mt and recycled soils to be 0.55mt out of total estimated arisings of CDEW of 10.50mt.
86. The report emphasises that although the national estimates appear reasonably robust, this is less true as the focus becomes more local, because response rates were not high enough. The regional figures therefore have a degree of uncertainty attached to them. The Leeds Annual Monitoring Report for 2006 estimates that within the Leeds District some 250,000 tonnes of recycled aggregates were produced but emphasises that this could be subject to a wide margin of error.

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Clay

87. Fireclay is opportunistically extracted with opencast coal, if it is present and of adequate quality.
88. Swillington Brickworks has reserves of 6.5 million tonnes of brickmaking material. It is too simplistic to call this brick clay as harder bands of material are extracted and crushed and blended in. Output is currently 25 million bricks per year but it is anticipated that this could increase to 100 million bricks per year. Howley Park Brickworks at Morley is similar in size to Swillington at the moment but is not to be upgraded. It is estimated that reserves will be in the millions of tonnes, though less than Swillington.
89. Leeds is believed to be self sufficient in bricks, at least in terms of numbers.