Tees Valley Joint Minerals and Waste Development Plan Documents

Core Strategy

Preferred Options Report - February 2008

Purpose of this Report

In September 2006, the Tees Valley Joint Strategy Unit (JSU) appointed consultants, Entec UK Ltd, to prepare two Joint Minerals and Waste Development Plan Documents (DPDs) on behalf of the five Boroughs of the Tees Valley sub-region (Darlington, Hartlepool, Middlesbrough, Stockton and Redcar & Cleveland).

The two DPDs will consist of a Core Strategy and a Policies and Sites document. The Core Strategy will comprise the long-term spatial vision and the overarching primary policies needed to achieve the strategic objectives for minerals and waste developments in the Tees Valley. The Policies and Sites document will identify specific minerals and waste sites in conformity with the Core Strategy and provide a framework of development control policies to assess future minerals and waste planning applications in the Tees Valley.

The adopted Minerals and Waste DPDs will comprise part of the Local Development Framework for each of the Boroughs, which together with the Regional Spatial Strategy for the North East will form the Development Plan for the area. They will cover all of the land within the five Boroughs except for that which also falls within the North York Moors National Park.

The Preferred Options Reports represent the second stage of the preparation process. The first stage, in May 2007, was the production of an Issues and Options Report, where the issues affecting minerals and waste development in the Tees Valley were identified and consultees and the general public were asked to identify which of the options presented were the most appropriate for dealing with the issues. The Preferred Options Reports now identify which of the options are preferred.

Following this second stage, the DPDs will be submitted to the Secretary of State (scheduled for January 2009) and public representations will again be invited on them. The DPDs will then progress to independent examination (anticipated in July 2009) and adoption (anticipated in April 2010).

This report identifies the preferred options for the Core Strategy DPD. The Policies and Sites Preferred Options report is being published alongside it.

The reports are being published now to encourage public participation and comment on the preferred options. In the production of the report it has been assumed that all information obtained and used is accurate, complete and not misleading.

The results of this participation exercise will influence how the Minerals and Waste DPDs develop through the remainder of the preparation process.

Contents

7. Monitoring and Implementation 38

1. Introduction

1.1 Background

1.1.1 The Planning and Compulsory Purchase Act 2004 came into force in September 2004 and introduced significant changes to the planning system. The Act introduced the concept of Local Development Frameworks to replace the previous Local Plan system. Local Development Frameworks will consist of a portfolio of local development documents that set out the spatial planning policies for a defined area.

1.1.2 The Tees Valley consists of five Boroughs: Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton-on-Tees. Each of these Boroughs is a unitary authority and therefore has sole responsibility for local government functions in their respective areas. They are responsible for producing an individual Local Development Framework for their own area, which will include spatial planning policies for minerals and waste. These five authorities are supported in their work by the Tees Valley Joint Strategy Unit (JSU), which provides support and guidance on matters which affect the whole of the Tees Valley.

Figure 1 The Tees Valley

1.1.3 In the case of minerals and waste planning, the five authorities have joined together with the Tees Valley JSU to prepare planning policies on minerals and waste. This approach provides a number of advantages which include economies of scale, a joined up approach to take into account the many cross

boundary issues arising across the sub-region and co-ordinates with the preparation of a joint Municipal Waste Management Strategy. The consultants at Entec UK Ltd were appointed in September 2006 to undertake the majority of the work.

1.1.4 The production of minerals and waste policies will take place through the production of two Minerals and Waste Development Plan Documents (DPDs), which will be adopted by each of the five Councils as part of their Local Development Frameworks. These DPDs will cover all of the land within the Tees Valley except for that land which falls within the North York Moors National Park. Responsibility for minerals and waste planning policy in the National Park falls to the North York Moors National Park Authority.

1.1.5 It has been decided to combine minerals and waste together in one set of DPDs because the Tees Valley has relatively few minerals reserves and, correspondingly, few minerals operators. While waste-only DPDs could be produced, the preparation of minerals-only DPDs would not be justifiable, and therefore the two subjects have been combined.

1.2 The Tees Valley Minerals and Waste Development Plan Documents

1.2.1 The Tees Valley will be subject to a significant level of growth over the period to 2021. New development will include housing, roads, commercial and industrial development and new schools, libraries, and other community buildings. The scale of development has implications for the future provision of minerals which are used for construction purposes and for the management of waste which will arise as a result of these developments. There is also a need to ensure that existing levels of waste arisings are dealt with in a more sustainable manner than at present. The DPDs therefore need to ensure:

- that sufficient quantities of the minerals needed to support this level of growth, are available at the right time;
- that the waste generated in the plan area, including from new developments, is dealt with in a sustainable manner through a network of waste management facilities which reduce the need to landfill; and
- that the environment and amenity of residents in the Tees Valley is safeguarded.

1.2.2 The Minerals and Waste DPDs will provide a clear spatial vision for the Tees Valley together with a realistic implementation strategy. This Preferred Options Report considers the Core Strategy which will comprise the long-term spatial vision and the overarching primary policies needed to achieve the strategic objectives for minerals and waste developments in the Tees Valley. It will provide a coherent spatial strategy until 2021 and will contain measurable objectives consistent with the emerging Regional Spatial Strategy (RSS).

1.2.3 The Preferred Options will also include a Policies and Sites document. This will identify specific minerals and waste sites in conformity with the Core Strategy and provide a framework of development control policies to assess future minerals and waste planning applications in the Tees Valley. The Polices and Sites document is dependent upon, and will be produced in conformity with, the Core Strategy.

1.2.4 The adopted Minerals and Waste DPDs will comprise part of the Local Development Framework for each of the Boroughs, which together with the Regional Spatial Strategy for the North East will form the Development Plan for the area.

1.2.5 This approach will result in each of the five Boroughs having two Core Strategies in their Local Development Framework: the overarching Core Strategy which will form the backbone of the whole of the Local Development Framework and the Minerals and Waste Core Strategy. To avoid confusion, opportunity will be taken as soon as practicable to merge these two Core Strategies together, to produce a single Core Strategy for each Borough.

1.2.6 The production of the Minerals and Waste DPDs will be subject to a Sustainability Appraisal[1] and a Habitats Risk Assessment (sometimes known as Appropriate Assessment)[2]. As the production of the documents progress, these documents will provide advice on what the most sustainable options are and help to ensure that all parts of the DPDs conform to the principles of sustainable development and do not adversely affect Special Areas of Conservation and Special Protection Areas. The Sustainability Appraisal will also incorporate an Equalities Impact Assessment to ensure that the documents do not discriminate in terms of race, disability, gender, age, faith, sexual orientation or against any other groups within the community[3].

1.2.7 When adopted, the Minerals and Waste DPDs will be key local planning policy documents that will be considered when decisions are made on minerals or waste planning applications in the Tees Valley.

1.3 Timescales

1.3.1 The key milestones for the remainder of the preparation of the Development Plan Documents are set out in Table 1.1, along with the relevant part of the sustainability appraisal at each milestone.

---

[1] As required by the SEA Directive of the European Union (2001/42/EC) and the Planning and Compulsory Purchase Act 2004.

[2] As required by the EU Habitats Regulations (92/43/EEC) and the Conservation (Natural Habitats, &c.) Regulations 1994

[3] There are various pieces of legislation and guidance relevant to Equalities Impact Assessment including the Race Relations (Amendment) Act 2000, the Disability Discrimination (Amendment) Act 2005, the Equality Act 2006, the Sex Discrimination Act, European Directives on age, faith and sexual orientation and the Equality Standard for Local Government.

Table 1.1 Timetable for Production of the Minerals and Waste DPDs

Document	Date	Contents	Period of Consultation	Sustainability Appraisal
Preferred Options	February 2008	Identifies the preferred options for the Core Strategy and the Policies and Sites Document, to deal with the issues facing minerals and waste. These options will be informed by responses to the Issues and Options consultation.	6-weeks	Consultation on Sustainability Appraisal Report
Submission to the Secretary of State	January 2009	Submission of the Core Strategy and Polices and Sites Document to the Secretary of State, as well as a final public consultation on the submitted documents.	6 weeks	Consultation on changes to the Sustainability Report
Examination	July 2009	An independent inspector will examine the Core Strategy and Policies and Sites Documents to ensure they are sound.		
Adoption	April 2010	Adoption of the Core Strategy and Policies and Sites Document.		

1.4 Community and Stakeholder Involvement

1.4.1 A key feature of the new planning system is to strengthen the involvement of the community and stakeholders, with a view to involving them in the process much earlier than has happened previously. Involvement to date has included direct contact with the minerals and waste industries in the Tees Valley. A stakeholder workshop was held in December 2006 where a range of organisations with an interest in minerals and waste and/or the Tees Valley were involved**.** The information obtained from these contacts and the workshop influenced the production of the Issues and Options report

1.4.2 An Issues and Options Report was issued for public consultation in May 2007, with close to 1,800 organisations, companies, community groups, councillors and individuals contacted directly about the consultation and invited to take part. Information about the consultation exercise was also advertised on the websites of the five authorities, the Tees Valley JSU and Entec, via the local press, in local libraries and 6 drop-in events were held in libraries to allow people to come and discuss the Issues and Options Report[4].

Throughout the Core Strategy you will find text boxes surrounded by dashed lines like this one. These boxes are placed next to the different issues being considered and they detail where in the Issues and Options Report you can find the corresponding section.

[4] Further information on community and stakeholder consultation can be found in the Statement of Compliance with Regulation 28

1.4.3 The Sustainability Appraisal also examined the Issues and Options Report to help confirm the most sustainable options available. The comments received from the consultation exercise and the Sustainability Appraisal were used to produce the Preferred Options Report. The Preferred Options Report is now being issued for public participation for 6 weeks, in order for comments to be made on the options chosen by the Tees Valley authorities.

1.5 The Preferred Options Consultation

1.5.1 Please help us to prepare the Minerals and Waste DPDs by letting us know what you think of these preferred options. The best way to do this is to complete the comments form accompanying this report and return it to us as described below.

1.5.2 Your comments will be used to establish whether the preferred options are the most suitable, or whether they need amending before the next stage - the publishing of the Submission Draft of the DPDs. The DPD will be considered by an Inspector at public examination who will assess whether they are sound against the following tests:

- It has been prepared in accordance with the relevant planning authority's Local Development Scheme;
- It has been prepared in compliance with the authority's Statement of Community Involvement (SCI), or with the minimum requirements set out in the Regulations where no SCI exists;
- The plan and its policies have been subjected to sustainability appraisal;
- It is a spatial plan which is consistent with national planning policy and in general conformity with the Regional Spatial Strategy and it has proper regard to any other relevant plans, policies and strategies relating to the area or adjoining areas;
- It has regard to the authority's community strategy;
- The strategies/policies/allocations in the plan are coherent and consistent within and between DPDs prepared by the authority and by neighbouring authorities, where cross boundary issues are relevant;
- The strategies/policies/allocations represent the most appropriate in all the circumstances, having considered the relevant alternatives, and are founded on a robust and credible evidence base;
- There are clear mechanisms for implementation and monitoring;
- The plan is reasonably flexible to enable it to deal with changing circumstances.

1.5.3 You can make any comments you wish on the Preferred Options Report, but to help with the whole production process, it would be beneficial if your comments were related to these tests of soundness where possible.

1.5.4 There are various ways in which you can make comments on the Preferred Options Report:

- by downloading the form from the web (addresses below) and emailing it to marln@entecuk.co.uk;
- by posting it to Entec UK Ltd, Northumbria House, Regent Centre, Gosforth, Newcastle upon Tyne, NE3 3PX; or
- by faxing it to 0191 2726110

1.5.5 Please make your response by 2nd April 2008 and mark it for the attention of Neil Marlborough.

1.5.6 This document is available on the web by choosing the minerals and waste links from the web sites described below. It can also be made available in other languages, large print or Braille etc on request.

www.entecuk.co.uk

www.teesvalley-jsu.gov.uk and then follow the 'Waste & Resources' link;

www.darlington.gov.uk/planning and then follow the 'Planning Policy' and 'Minerals & Waste' links;

www.hartlepool.gov.uk and follow the 'Planning' and 'Planning Policy' links;

www.middlesbrough.gov.uk and follow the 'Planning Services', 'Local Development Framework' and 'Minerals and Waste Core Strategy and Site Allocations Development Plan Documents' links;

www.redcar-cleveland.gov.uk/LDF and follow he 'Waste & Minerals' link;

www.stockton.gov.uk and follow the 'On-line Planning Services', 'Spatial Planning Section', 'Local Development Framework' and Minerals and Waste Planning' links.

2. Context

2.1 The Tees Valley

2.1.1 The Tees Valley is a sub-region covering the boroughs of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton-on-Tees. However the Minerals and Waste DPDs do not include the land within the Tees Valley which is part of the North York Moors National Park. Responsibility for minerals and waste planning within the Park is held by the North York Moors National Park Authority. It is important to note that the Tees Valley is not the same as the Tees Valley City Region, as identified in the Regional Spatial Strategy for the North East and by the Northern Way, as this city region also includes parts of County Durham and North Yorkshire.

2.1.2 The Tees Valley covers an area of 79,400ha and has a population of 651,000 (mid-2006). This population is projected to decline by 3% from 652,800 in 2003 to 636,200 in 2021, although due to the make up of the population the number of households will actually increase in this time (272,500 to 306,000)[5].

2.1.3 The urban areas of the Tees Valley are concentrated around the River Tees with the main conurbation comprising the settlements of Redcar, Middlesbrough and Stockton, with free standing urban areas at Hartlepool in the north and Darlington to the west. There are also a number of smaller rural settlements across the sub-region.

2.1.4 The focus of the urban areas around the River Tees arose from the river's importance to the traditional industries of the area - steel, shipbuilding and chemicals. However, the Tees Valley has experienced considerable economic, physical and social change over the last 20 years and many of the traditional industries on which the local economy has depended have declined in importance or disappeared altogether. This has left high unemployment rates and large areas of derelict and vacant land in some of the urban areas and along the banks of the River Tees. More positively, the area has seen much new growth, through the development of industrial estates and housing areas, investment in town centres and the expansion of the major road network.

2.1.5 Parts of the sub-region, especially around the Tees estuary and the coast, have a very high ecological significance, both locally and internationally. Areas of high quality landscape have been protected and there has been a significant reduction in overall levels of air and water pollution. There are also thousands of hectares of land with a high landscape value and of significant ecological importance, including European designations and the North York Moors National Park.

[5] Population and Household Projections for the Tees Valley 2003 - 2021, Tees Valley JSU, June 2005 and Statistics page from www.teesvalley-jsu.gov.uk, November 2007

2.2 Policy Context

2.2.1 The policy context for the DPDs covers planning policy at national, regional and local levels, and includes minerals and waste specific policy as well as more general planning policy.

National Policy

2.2.2 National planning policy which is relevant to the DPDs is primarily contained within:

- Planning Policy Statement 1 (PPS1) "Delivering Sustainable Development" (ODPM, 2005);
- Minerals Planning Statement 1 (MPS1) Planning and Minerals (DCLG, 2006)
- The National and Regional Guidelines for Aggregates Provision (ODPM, first published 2003 and reviewed annually)
- Planning Policy Statement 10 (PPS 10) Planning for Sustainable Waste Management (ODPM, 2005).
- Waste Strategy for England 2007 (DEFRA, 2007)

Regional Policy

2.2.3 Adopted regional policy is currently contained within the Regional Spatial Strategy (RSS), which was published as Regional Planning Guidance for the North East (RPG1) in 2002. This is being replaced by an updated RSS, which is expected to be adopted in 2008. In May 2007 the Secretary of State published Proposed Changes to the Draft Revision of the RSS for further consultation. This document has been prepared in the light of PPS 10 and is a relevant policy document to inform the preparation of this DPD. The waste apportionment figures and capacity requirements included in the Draft Revision of the RSS are currently being reviewed and this document has been produced to take this review into consideration.

Local Policy

2.2.4 All five of the Boroughs in the Tees Valley are in the process of preparing their Local Development Frameworks with Redcar & Cleveland adopting their Core Strategy and Development Policies DPDs in July 2007. Selected policies of their existing Local Plans and the Tees Valley Structure Plan have been formally saved and remain the adopted policies until fully replaced by Local Development Framework policies. The relevant local documents (or parts thereof) are therefore:

- Tees Valley Structure Plan (2004);
- Borough of Darlington Local Plan (1997), with alterations 2001;

- Hartlepool Local Plan (2006);
- Middlesbrough Local Plan (1999);
- Redcar & Cleveland;
    - Certain saved policies from the Redcar & Cleveland Local Plan (1999);
    - Redcar & Cleveland Core Strategy Development Plan Document (2007);
    - Redcar & Cleveland Development Polices Development Plan Document (2007);
- Stockton-on-Tees Local Plan (1997).
- Along with each of the Borough's Community Strategy.

2.2.5 Other local level documents which are of importance to the production of the DPDs include the Joint Municipal Waste Strategy, the Tees Valley Biodiversity Action Plan and the Durham Biodiversity Action Plan.

Sustainability Appraisal

2.2.6 The Minerals and Waste DPDs are subject to a sustainability appraisal which will also incorporate an Equalities Impact Assessment. This appraisal is an ongoing process throughout the production of the documents, with appraisal reports being published to correspond to each of the key stages. These reports will advise on the sustainability of the Minerals and Waste DPDs at each stage, and provide advice on which decisions would give the most sustainable approach as the DPDs progress to the next stage of the process.

Habitats Regulations Assessment

2.2.7 A Habitats Regulations Assessment (HRA) is also being undertaken during the production of the DPDs. This assessment considers the effect that the contents of the DPDs would have on European (Natura 2000) sites. These sites include Special Areas of Conservation and Special Protection Areas, both of which can be found within, and adjacent to, the Tees Valley area. As with the sustainability appraisal, the HRA is an ongoing process throughout the production of the DPDs to allow the assessment to influence the production process.

Municipal Waste Management Strategies

Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton-on-Tees Joint Municipal Waste Management Strategy (May 2002)

2.2.8 There is an existing Joint Municipal Waste Management Strategy in place between the four former Cleveland County authorities which was adopted in May 2002. This Strategy aims to:

- Achieve the statutory targets of the Waste Strategy 2000;
- Build on the area's contribution to reducing reliance on landfill;

- Identify sources of funding available to implement the strategy
- Manage wastes so as to minimise adverse environmental effects;
- Make waste management facilities widely accessible, especially to those without cars; and
- Minimise waste through education, awareness raising and refuse collection and recycling procedures.

2.2.9 The Strategy also sets the following targets:

- A minimum of 45% of all waste deposited at civic amenity sites to be recycled or composted by 2005/06 and 50% by 2010/11;
- Total household waste to be stabilised at or below 2010/11 levels after 2010;
- 15% of all householders to be making compost at their homes by 2005 and 20% by 2010;
- Government targets for recycling of domestic waste to be achieved; and
- Municipal waste landfilled to be reduced to less than 8% of the total by 2003/04 and less than 5% of the total by 2010/11.

2.2.10 Darlington Borough Council presently has an interim waste management strategy for the period 2003-08 which reflects its limited ability to move away from landfill during the contracted period for disposal entered into by its predecessor waste authority. The interim strategy nevertheless confirms what can be achieved in the short term in respect of sustainable waste management.

Tees Valley Joint Waste Management Strategy

2.2.11 The existing Municipal Waste Management Strategies are being replaced by an updated strategy, which incorporates all five authorities. The replacement strategy is still at a relatively early stage, with a Draft Headline Strategy produced in September 2007. The principles of the replacement strategy are:

- To reduce waste generation;
- To be achievable and affordable;
- To work towards zero landfill;
- To minimise the impact on climate change;
- To have an accountable and deliverable structure; and
- To contribute towards economic regeneration.

2.2.12 The Draft Headline Strategy identified a preferred approach to ensure these principles are met, which involves the implementation of a brand new waste prevention and minimisation strategy, revised collection systems for optimum

performance and encouraging new build treatment capacity with residual waste going to energy from waste or landfill for final disposal.

2.3 Minerals and Waste in the Tees Valley

Minerals

2.3.1 Historically minerals extraction in the Tees Valley was focussed on iron ore and alum in the East Cleveland areas, coal extraction in land close to the present boundary with County Durham and the extraction of salt and gypsum around Billingham. In Darlington Borough the Permian Magnesian limestone outcrop historically provided a source of building stone for the local area and clay was widely extracted for brickmaking. However, the extraction of these minerals has gradually declined over the years as the economic viability of extraction reduced. Recently minerals extraction has been focussed on primary aggregates, including sand, gravel and crushed rock. However, the level of extraction is small scale, and there are now only two operational sand and gravel extraction sites and one operational crushed rock site in the Tees Valley. The sand and gravel sites are a beach extraction site at North Gare in Hartlepool and a land based site at Stockton Quarry near Thorpe Thewles. The crushed rock site is located at Hart Quarry in Hartlepool.

2.3.2 In addition to these primary extraction sites, the Tees Valley produces significant quantities of secondary aggregates from the by-products of steel making processes. Marine dredged sands and gravels are also landed at two wharves on the River Tees.

2.3.3 The potash mine at Boulby is within the boundaries of Redcar and Cleveland Borough Council, but it also falls within the North York Moors National Park, and therefore the responsibilities for planning decisions on the mine itself lie with the National Park Authority, and can not be considered within this document.

Waste

Municipal Solid Waste (MSW)

2.3.4 The Tees Valley produced 398,200 tonnes of Municipal Solid Waste (MSW) in 2006/07, with the majority of this waste being from households (316,200 tonnes) and the remainder being commercial waste and rubble collected by the waste authorities. Of the household waste, 169,400 tonnes (54%) is dealt with at the energy from waste plant at Haverton Hill and the remainder either recycled or composted (76,300 tonnes or 24%) or sent to landfill (70,500 tonnes or 22%). The commercial element of municipal waste (55,000 tonnes) is split between energy from waste (29,700 tonnes or 54%) and landfill (25,300 tonnes or 46%). The remaining 26,100 tonnes, consisting of soil and rubble, is recycled[6].

[6] Figures provided by the Tees Valley JSU.

2.3.5 Capacity for the landfilling of MSW is presently utilised at three sites in the Tees Valley: Cowpen Bewley, Port Clarence and Seaton Meadows, with a further site at Carlin Howe Farm currently unused. The MSW from Darlington is currently landfilled at a site outside of the Tees Valley in County Durham.

2.3.6 Other facilities used for MSW from the Tees Valley include five Household Waste Recycling Centres (Civic Amenity Sites) and five commercially run composting sites (although only one of these is actually located within the Tees Valley). Darlington Borough Council compost the green waste collected from their premises, parks, etc at the Council depot in Darlington and home composting of household waste is also widespread throughout the Tees Valley.

Commercial and Industrial Wastes

2.3.7 In 2002/03, the last year that figures were collected, the Tees Valley produced 2,511,000 tonnes of Commercial and Industrial (C&I) wastes, with the main source of arisings being minerals wastes - typically slag from steel production. Significant quantities of waste are also generated in the Tees Valley from the chemicals industry. Of the total amount produced, 1,286,000 tonnes were re-used or recycled, with 955,000 tonnes disposed of by landfill[7]. The remainder underwent treatment and transfer or its fate was not recorded.

Construction and Demolition Wastes

2.3.8 No information is available for Construction and Demolition (C&D) wastes in the Tees Valley, although information is available for the North East as a whole. This information issue is not necessarily significant as it is more important that the DPDs provide for the management of C&D waste in most appropriate locations by the most appropriate methods. Research for DCLG states that 4,814,703 tonnes of C&D waste was dealt with in the North East in 2005, with around 39% being recycled for use as aggregates or as soils and 25% being disposed of as waste at landfill sites[8]. The remainder of C&D waste was used in the engineering of landfill sites or disposed of at exempt sites.

Hazardous Wastes

2.3.9 Companies within the Tees Valley both produce, and deal with, a significant amount of hazardous waste, which give the area a reputation as a specialist location for the management of these wastes. There is a high level of movement of hazardous waste around the country due to the specialist nature of the different treatment/disposal facilities available. In 2004 the Tees Valley produced around 104,000 tonnes of hazardous waste and dealt with 118,000 tonnes[9]. Of the hazardous waste dealt with in the Tees Valley, around 69%

[7] Figures from the Environment Agency website www.environment-agency.gov.uk downloaded October 2006

[8] Figures from Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005, DCLG, February 2007

[9] Figures from Hazardous Waste Interrogator, Environment Agency website www.environment-agency.gov.uk, downloaded September 2007

went to landfill, with 25% undergoing treatment. The remainder was either transferred, recycled or re-re-used, or went through other processes.

Sewage Waste

2.3.10 Sewage waste in the Tees Valley is dealt with by Northumbrian Water Ltd who has a number of facilities across the area including the Regional Sludge Treatment Centre at Bran Sands. The facility treats the sludge generated from sewage treatment works across the North East, as well as effluents produced from industrial facilities in the Tees Valley. In recent years there have been large scale improvements to the existing sewage treatment facilities in the area, as Northumbrian Water Ltd strive to meet the improved targets for discharges of the treated waste into water courses and the sea and these improvements works are likely to be a continuous process into the future.

Nuclear Waste

2.3.11 The majority of nuclear waste produced in the UK is classified as 'low-level' waste and there are existing processes in place to allow for the disposal of this waste. Decisions on the future treatment and disposal of nuclear waste will be set at the national level and will not be considered in this document. However, for information, all spent nuclear fuel in the UK, including from Hartlepool Power Station, is presently transported to Sellafield in Cumbria where it undergoes reprocessing to enable any re-useable components to be extracted before the remaining radioactive waste is deposited at licensed stores in Cumbria.

3. Spatial Vision and Strategic Objectives

3.1 Spatial Vision

Issue 1 of the Issues and Options Report

3.1.1 The preferred spatial vision for minerals and waste developments in the Tees Valley will influence the direction of the Minerals and Waste Development Plan Documents and, in turn, new minerals and waste developments. The vision will ensure that all decisions that are made consider the longer term implications, and do not just focus on short term solutions.

3.1.2 A draft vision (referred to as a strategy) was presented for comment in the Issues and Options Report which drew on the guidance provided by national, regional and local policies and strategies, stakeholder inputs and the baseline information gathered. The majority of comments received were positive, with comments suggesting some minor amendments to strengthen it. The Sustainability Appraisal also recommended some minor additions to strengthen the wording. As such the following wording is presented as the preferred spatial vision:

'In 2021, the Tees Valley will be a sub-region where:

- *An appropriate contribution is made to the national, regional and local requirements for minerals by ensuring minerals are used, managed and extracted in a manner which drives mineral use up the minerals hierarchy, with opportunities for the processing and use of secondary and recycled minerals being maximised. It is recognised that there is a limited extraction of primary aggregates minerals, but that the nature of construction work over the plan period will help promote the use of secondary and recycled aggregates;*
- *A modern waste management industry is in place, which provides an adequate provision of facilities which are driving waste management up the waste hierarchy. Advantage will be taken of the opportunities presented by the waste management industry for environmental improvements, education, training, employment, innovation and the symbiotic relationship with other environmental industries, which arise from the nature of the existing industries and available land in the Tees Valley;*
- *Minerals and waste related developments will be provided and located in a sustainable manner which contributes to the Tees Valley being a place where present and future generations have a high quality of life and where all members of the community have the opportunity to realise their full potential, though the provision of a vibrant economy, a safe and healthy environment and dynamic educational and cultural resources.*

3.1.3 Further details on the minerals hierarchy can be found in paragraph 5.1.1 and the on the waste hierarchy in paragraph 6.1.1.

Issue 2 of the Issues and Options Report

3.2 Strategic Objectives

3.2.1 Seven strategic objectives were presented in the Issues and Options Report, and, as with the draft vision, the majority of comments received were positive, with only minor changes suggested to the wording. The Sustainability Appraisal suggested that the supporting text, which was provided in the Issues and Options Report, could be amended to strengthen the objectives. However, the supporting text has not been included in this report and the issues raised by the Sustainability Appraisal are therefore covered elsewhere (the use of previously developed land in policies MWC9 and 10; social protection in policies MWC1 and MWP1; and cultural environment in policies MWC1 and MWP1). The following are therefore proposed as the preferred objectives:

A. To reduce the impacts of development on the causes of climate change and the effects of climate change on development;

B. To make provision for the adequate and steady supply of the minerals needed by society, whilst driving minerals supply up the minerals hierarchy;

C. To safeguard minerals resources from unnecessary sterilisation;

D. To drive the management of all waste up the waste hierarchy, towards the minimisation of waste production;

E. To protect and enhance the environment, amenity and human health;

F. To promote the use of sustainable transport;

G. To provide sufficient waste management facilities in a timely and sustainable manner, in order for all waste to be managed as near as possible to its source.

4. General Policies

4.1.1 The general policies will need to be taken into account for all minerals and waste developments in the Tees Valley and they reflect the commitment to working in a sustainable manner and the need to meet the strategic objectives in relation to climate change, the environment and public amenity.

Strategic Objective A: To reduce the impacts of development on the causes of climate change and the effects of climate change on development;

Strategic Objective E: To protect and enhance the environment, amenity and human health;

Strategic Objective F: To promote the use of sustainable transport.

4.1.2 In order to emphasise the commitment to achieving sustainable development, the preferred option for Policy MWC1 is:

Policy MWC1: Sustainable Development

All proposals for minerals and waste related developments shall demonstrate that they meet the principles of sustainable development that are set out in national and regional planning documents by showing that:

- They have been designed to adapt to the effects of climate change;
- The proposals are located and designed to reduce greenhouse gas emissions and other causes of climate change;
- They will not cause significant adverse effects on the environment, public amenity or the transport network;
- Minerals resources will be conserved, whilst ensuring a steady and adequate supply of the minerals needed by society and the economy;
- The benefits of the development will be maximised, and the impacts of operations minimised, over the full life cycle of the development; and
- The production of waste will be prevented or minimised, and what waste is produced is dealt with so as to recover value from the waste.

Reasons and Rejected Options:

No other options were considered for this policy as it is a direct reflection of national guidance.

5. Minerals

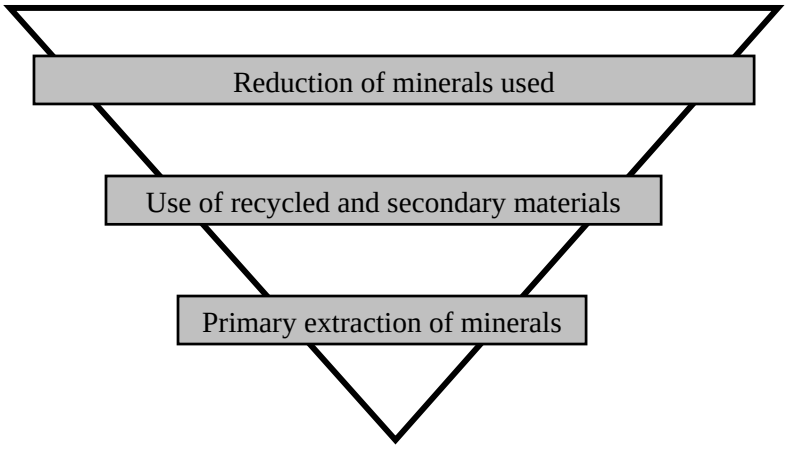
The main strategic objectives in relation to minerals are:

Strategic Objective B: To make provision for the adequate and steady supply of the minerals needed by society, whilst driving minerals supply up the minerals hierarchy;

Strategic Objective C: To safeguard minerals resources from unnecessary sterilisation.

5.1 The Minerals Hierarchy

5.1.1 The minerals hierarchy sets out the different approaches to the supply of minerals, and orders them in terms of their sustainability. The most sustainable option is to reduce the amount of minerals used, followed by sourcing minerals from secondary and recycled materials, and finally through the primary extraction of minerals.



5.2 Aggregates

Issues 3 and 4 of the Issues and Options Report

5.2.1 Aggregates minerals are materials which are used in construction processes including concrete manufacture and road making. In planning terms they are different to other minerals discussed in the Minerals and Waste DPDs in that guidance is provided by the government on the amount of these minerals which should be produced by each region in England, in a process known as apportionment. These guideline figures are then broken down by the regional planning bodies, to provide a guideline figure for each of the Minerals Planning Authorities in their area, which is known as sub-regional apportionment.

5.2.2 Details on aggregates sales, reserves and landbanks for the North East are contained in the Annual Monitoring Reports produced by the North East Regional Aggregates Working Party (NE RAWP). However, for reasons of commercial confidentiality the information concerning the sales and reserves

of aggregate minerals in the Tees Valley can not be published individually and the information is therefore combined with the figures for County Durham. This creates a problem as there is no published information available for the Tees Valley to check if they are supplying sufficient levels of aggregates. To try and overcome this situation, the NE RAWP contacted minerals operators in the North East to ask for their agreement in allowing their individual survey returns to be used in the production of Minerals and Waste planning policy documents. To date, the operator of the crushed rock quarry in the Tees Valley, Sherburn Stone, has agreed to this[10] and therefore information relating to crushed rock can be published in this document.

5.2.3 However, no such confirmation has been received from the sand and gravel operator, Cemex - Stockton Quarry and North Gare, and therefore it is not currently possible to confirm from the NE RAWP survey returns whether the Tees Valley can meet its sub-regional requirements for sand and gravel.

5.2.4 National guidance also details that landbanks should be used by minerals planning authorities to indicate when new permission for aggregates extraction are likely to be needed. A landbank of less than 7 years for sand and gravel and less than 10 years for crushed rock is suggested as being an indicator of when new permissions may be needed.

Sand and Gravel

Table 3.2 Sand and Gravel Figures: Guidelines and Reserves

	Guideline production figures 2001-2016	Estimated production needed 2001 - 2021	Produced 2001-2004	Remaining to be produced 2004-2021	Sand and Gravel reserves 2004
Tees Valley	160,000	210,000	*	*	*

*Confidential figure

5.2.5 The guideline figure identified in the RSS for sand and gravel production in the Tees Valley from 2001 to 2016, is 160,000 tonnes. If this rate is continued on to 2021, to bring it in line with the timescales used elsewhere in the Minerals and Waste DPDs, the figure rises to 210,000 tonnes. North Gare could theoretically produce up to 50,000 tonnes per annum in accordance with its licence arrangements. However, the site is a beach extraction site and is dependent on the conditions at the beach being suitable for extraction and the actions of the sea continuing to replenish the sand. As there are no guarantees that this will continue in the future, it is not possible to establish a figure for permitted reserves at this site.

[10] Correspondence between NERAWP and Sherburn Stone 10th and 12th January 2007

5.2.6 Although there are no confirmed figures publicly available for the amount of permitted reserves at Stockton Quarry, an estimation of the reserves can be made from other sources. These include the area of land available to be worked, likely depth of the sand and gravel resources and the specific gravity of sand and gravel. Using the information from these sources it has been estimated that there are around 2,500,000 tonnes of sand and gravel at the site[11].

5.2.7 Stockton Quarry's permitted reserves, alongside the production from North Gare, are therefore sufficient to meet the sub-regional apportionment figure of 210,000 and to maintain a landbank of seven years or more. No further sand and gravel resources are required to be allocated in the Policies and Sites DPD.

Crushed Rock:

Table 3.2 Crushed Rock Figures: Guidelines and Reserves

	Guideline production figures 2001-2016	**Estimated production needed 2001-2021**	**Produced 2001-2004**	**Remaining to be produced 2004-2021**	**Crushed Rock reserves 2004**
Tees Valley	2,200,000	2,887,500	312,000*	2,575,500	4,100,000**

*Figure estimated from Annual Aggregates Monitoring Report 2005, NE RAWP

**Suitable for aggregate use

5.2.8 The table above shows the guideline figure for crushed rock extraction in the Tees Valley from the RSS, the figure if this rate is continued through to 2021, the amount produced between 2001 and 2004 (the latest data available) and identifies that 2,575,500 tonnes is needed to meet the remaining target figure up to 2021. From the NE RAWP Annual Aggregates Monitoring Report 2005 it can be seen that the Tees Valley has sufficient permitted reserves (4,100,000 tonnes) to meet the guideline figures for crushed rock production up to 2021 and to maintain a landbank of ten years or more. It is therefore considered that no further resources of crushed rock are required to be allocated in the Policies and Sites DPD.

[11] Tees Valley Joint Minerals and Waste Development Plan Documents: Minerals Background Paper, Entec UK Ltd for Tees Valley JSU, Draft December 2007

Reasons and Rejected Options

At the time of the Issues and Options Report, Stockton Borough Council was in discussion with Cemex over the status of the planning permission at Stockton Quarry. Although no firm decision had been reached, these discussions indicated that the permission might have lapsed, and it therefore had to be assumed that Stockton Quarry had no planning permission. Issue 3 of the Issues and Options Report therefore considered how to allocate sufficient sand and gravel resources to meet the sub-regional apportionment figure. Since then these discussions have confirmed that the planning permission is still valid and therefore no further resources need to be allocated. Issue 3 therefore no longer needs to be considered.

Issue 4 was a request for information for future use and therefore also does not need to be considered here.

Other Sources of Aggregate Material

Issue 5 of the Issues and Options Report

Alternative Materials

5.2.9 Aggregate minerals can also be supplied from alternative sources, other than through primary extraction. These include:

- Recycled aggregates: primary aggregates which have already been used can be reclaimed and recycled from the material arising from demolition processes.
- Secondary sources: other materials which can be used in place of primary aggregates in construction processes. These currently include blast furnace slag, power station ash, glass chips and shredded tyres.

5.2.10 The use of alternative materials is encouraged by national and regional policy in order to reduce the reliance on primary aggregates. The NE RAWP Report 2005 uses information published by the Department of Communities and Local Government on secondary aggregates. This information groups the Tees Valley together with County Durham and shows that in 2005, a total of 2.4 million tonnes of construction, demolition and excavation waste was managed in the two sub-regions, and that 0.9 million tonnes of this was recycled for aggregate use. It is also detailed that the two sub-regions produced 1.3 million tonnes of material which had the potential to be used as secondary aggregate, but that only 0.4 million tonnes of this actually was used for this purpose[12].

5.2.11 In the Tees Valley, a significant source of secondary aggregate is blast furnace slag. The recycling of this material is currently undertaken by Tarmac Ltd who in 2004, recycled over 500,000 tonnes to produce aggregates suitable for road construction.

[12] Annual Aggregates Monitoring Report 2005, North East RAWP, October 2007.

5.2.12 The Tees Valley already has a number of established companies and facilities which process alternative materials so that they are suitable for aggregate use, but in order to facilitate the increased use of recycled and secondary aggregates, opportunities should be taken to provide additional facilities.

Policy MWC2: Alternative Materials for Aggregates Use
The development of facilities to process materials which can be used as alternatives to primary aggregate resources will primarily be focussed on existing minerals and waste sites, as identified on the 'Existing Minerals and Waste Sites' plan, and on sites where these materials are being produced. If such development can not take place within these areas, then the development must accord with Policy MWC9.
Reasons and Rejected Options: The options presented in Issue 5 were the range of sites which could be suitable for new recycling facilities. Responses to the Issues and Options Report were that Option D, a combination approach was preferred, as it would provide the greatest flexibility on where to locate such operations. The Sustainability Appraisal also recommended Option D, with the inclusion of text stating that previously developed land should be preferred.

Marine Dredged Sand and Gravel

Issue 6 of the Issues and Options Report

5.2.13 Sand and gravel can also be extracted from the sea bed through dredging operations, although these are regulated by government licences rather than the planning process. The planning process can however exercise control of the wharf facilities where marine dredged sand and gravel is landed. Two such wharves are located on the River Tees at Cochrane's Wharf and Tees Wharf. The 2005 NE RAWP Report states that 1,049,000 tonnes were landed in 2004 in the North East as a whole. This figure is in line with the assumptions in national guidance and the wharves are therefore significant in facilitating the provision of sand and gravel to the sub-region.

5.2.14 Tees Wharf is located within the South Tees Industrial Zone as identified by Middlesbrough Borough Council's Regeneration DPD, which is part of the Greater Middlehaven regeneration area. Cochrane's Wharf is located in the East Middlesbrough Business Action Zone which lies directly adjacent to the South Tees Industrial Zone. Greater Middlehaven is the principal regeneration project being undertaken in Middlesbrough and is also one of the flagship regeneration schemes within the North East as a whole. Policies in the Regeneration DPD on the South Tees Industrial Zone and the East Middlesbrough Business Action Zone (REG1 and REG15) would support the continued use of the two wharves in principle, providing they do not prejudice the delivery of the Greater Middlehaven project. At the present time it is not known exactly what development would be located close to these wharves,

and therefore whether the operations at the wharves would prejudice the regeneration project.

5.2.15 The preferred option is therefore to safeguard the use of the wharves from other developments, except if this would prejudice the wider regeneration of the area. Development proposals are not scheduled to come forward for the South Tees Industrial Zone until after 2016, and given the timescales involved in preparing masterplans and obtaining planning permissions, it is considered there would be sufficient time to consider the re-location of the wharves if this was found to be necessary at this time.

Policy MWC3: Marine Dredged Sand and Gravel

The dredging of marine sand and gravel will be supported by the safeguarding of land connected with the two wharves on the River Tees at:

- Cochranes Wharf, and
- Tees Wharf,

from development which would prejudice their ability to land marine dredged sand and gravel, unless the safeguarding would compromise the regeneration of Greater Middlehaven or the East Middlesbrough Business Action Zone. The location of these sites is shown in Appendix A.

Should it be identified in the future that the continued operation of the wharves would compromise the regeneration of Greater Middlehaven or the East Middlesbrough Business Action Area, land will be identified along the banks of the River Tees for their re-location.

Reasons and Rejected Options:

The options identified for Issue 6 were based around the fact that sufficient wharf infrastructure is already in place (Option A) or that land should be allocated / safeguarded for future infrastructure (Options B, C and D). Option E provided for a combination approach of all the options. Responses were spread through out the options, with a slight favour towards Option A. Given the existing amount of sand and gravel landed at the wharves compared with the assumptions set out in guidance, it is considered that Option A is a correct assumption in that sufficient infrastructure already exists, but that Option D should also be used to safeguard the existing land. This has been done on the provision that this does not prejudice the regeneration of Greater Middlehaven as set out in Middlesbrough Borough Council's Regeneration DPD. The Sustainability Appraisal identified Option A as the most sustainable.

Issue 7 of the Issues and Options Report

5.3 Coal

5.3.1 There are potential, but limited, resources of deep coal within Hartlepool and very limited areas within Darlington and Stockton Boroughs. Shallow coal resources (extracted by opencast mining) potentially exist within a limited area of Darlington Borough. Coal extraction in the Tees Valley has been extremely limited in recent years. The last site to operate was the Southfields opencast coal site, located on the boundary of Darlington and County Durham. The site was operated by UK Coal Mining Ltd and extraction operations ceased in early 2005.

5.3.2 During the consultation process, there has been no interest from the coal industry in developing workings in the Tees Valley area. There have been no representations made by the coal industry to the DPD, despite direct contact, and no sites for coal extraction have been submitted for consideration.

5.3.3 Within the Tees Valley we are currently aware of one operation which has a significant requirement for coal, which is the Sembcorp works at Wilton. These works require around 300,000 tonnes of coal per annum[13]. In October 2007 Coastal Energy announced proposals to develop a clean coal power station at the Prairie site on Teesside. Initial proposals for this development indicate that it is likely the coal requirement would be met by imported coal. Comments made on the Issues and Options Report were that it was considered unlikely that there would be viable coal resources available in the Tees Valley and this ties in with the lack of response to the DPDs by the coal industry and the low level of coal extraction in the Tees Valley in recent years. It is therefore considered that no specific policy on coal is required, any viable resources will be adequately protected by the safeguarding policy (MWC6) and any proposals which do come forward for coal extraction can be assessed against other relevant policies from national planning documents, in the Minerals and Waste DPDs and the remainder of the Development Plan.

Reasons and Rejected Option: Coal

Issue 7 of the Issues and Options consultation, considered whether there were sufficient coal resources to enable the Tees Valley to contribute to the supply of coal. Responses confirm that such resources are not likely to be present or viable. Given the low level of coal extraction which has been undertaken in the Tees Valley in recent years and the lack of responses from the coal industry to the DPDs it is not proposed to include a specific policy on coal (Option A). Option A was also identified as the most sustainable, but with a recommendation that the promotion of rail and/or port facilities should be encouraged to be used in the importing of coal into the Tees Valley.

[13] Northumberland Minerals and Waste Development Framework Core Strategy Preferred Options, Northumberland County Council, 2006. (Sembcorp has been a major market for coal extracted in Northumberland.)

Issue 8 of the Issues and Options Report

5.4 Potash

5.4.1 The UK's only potash mine is located within Redcar & Cleveland Borough at Boulby. The mine is located within the boundaries of the North York Moors National Park and therefore any planning decisions regarding the site itself are the responsibility of the National Park Authority, rather than Redcar & Cleveland Borough Council. Although the potash resource stretches outside of the National Park boundary, and into the rest of Redcar & Cleveland, there has been no indication that any further extraction sites would be proposed within Redcar & Cleveland boundaries before 2021. The mine also produces significant quantities of salt and the materials produced from the site are transported through the Tees Valley area by both road and rail. A rail link leads from the site to Tees Dock, where facilities are in place to load the material onto ships for export.

Policy MWC4: Potash
The continued transportation of potash and salt from Boulby Mine by rail and sea will be supported by the safeguarding of the land associated with the existing rail and port infrastructure from developments which would prejudice the transporting of such materials by rail and water. This land is identified on the 'Minerals and Waste Allocations Map'.
Reasons and Rejected Option:
Two options were considered for Issue 8, one to concentrate on the transport infrastructure which is the only part of the mine's operations actually within the boundaries relevant to the DPDs and one to consider the possibility that further extraction would be required within the boundaries. While further extraction can not be completely ruled out in the future, there are no indicators at the present time that such extraction would be proposed in the short to medium term. This option was therefore rejected for inclusion in the DPDs at this time. No preference was given in the sustainability appraisal to either of the two options presented.

Issue 9 of the Issues and Options Report

5.5 Other Minerals

5.5.1 A number of the comments received in response to Issue 9 of the Issues and Options Report mentioned that brine extraction may still be ongoing on the Sabic Brinefields south west of Seal Sands and extant planning permissions could still be in place elsewhere across the Tees Valley. However, information from the British Geological Survey (BGS) indicates that all brine extraction ceased in the Tees Valley in 2002 although it is acknowledged that there may be future interest to create storage caverns for gas and certain fluids[14]. Other than this substance we are not aware of any other mineral in which there is likely to be a commercial interest within the Tees Valley at the present time. There is no evidence that planning applications for brine extraction, or the extraction of other minerals, will be forthcoming during the plan period and therefore any proposals which are submitted during this time will be assessed under the terms of the other relevant policies contained in national planning documents, the Minerals and Waste DPDs and the remainder of the Development Plan.

5.6 Safeguarding of Minerals from Sterilisation

Issue 10 of the Issues and Options Report

5.6.1 The sterilisation of minerals occurs when other developments are constructed on the land above or close to mineral deposits which would be viable for extraction. Sterilisation is also a possibility during the reclamation and making safe of former mines in the Tees Valley, which could contain remaining resources which could become viable for extraction again in the future. Minerals Planning Statement 1 states that minerals safeguarding areas should be identified in DPDs to avoid the sterilisation of minerals resources. Development will then be restricted in these areas, or prior extraction of the minerals encouraged before non-minerals development takes place. Safeguarding areas do not however mean that the minerals resources will definitely be worked. Any proposal for mineral extraction would be assessed against all relevant policies. Another reason for safeguarding land would to prevent developments occurring close to existing minerals extraction sites which could prejudice the operations involved in the extraction of the minerals. An example of this could be the development of residential properties adjacent to the boundary of an extraction site. The proximity would be likely to lead to complaints from the occupiers of the properties about the working practices, which could lead to operations being restricted.

[14] Minerals Planning Factsheet: Salt, BGS, 2006

Policy MWC5: Minerals Sterilisation

Important, viable mineral resources, including those covered by existing planning permissions or allocations, will be safeguarded from development which would have the effect of sterilising these resources.

In particular the land identified in Appendix B associated with Hart Quarry, North Gare and Stockton Quarry, shall be safeguarded to prevent the minerals operations at these three sites being prejudiced by other developments.

The extraction of mineral resources in advance of other development will normally be permitted providing it accords with other relevant policies.

Reasons and Rejected Option:

Issue 10a: an option not to provide safeguarding areas was considered due to the relatively low occurrence of remaining minerals resources in the Tees Valley. This was rejected due to national policy requiring safeguarding areas to be provided. The sustainability appraisal also concluded that Option A was the most sustainable of the two options provided.

Issue 10b also asked if it was realistic to assume that former mines may have remaining resources that could become viable again in the future. However no firm evidence was provided that this may be a realistic scenario and this option was therefore discarded.

6. Waste

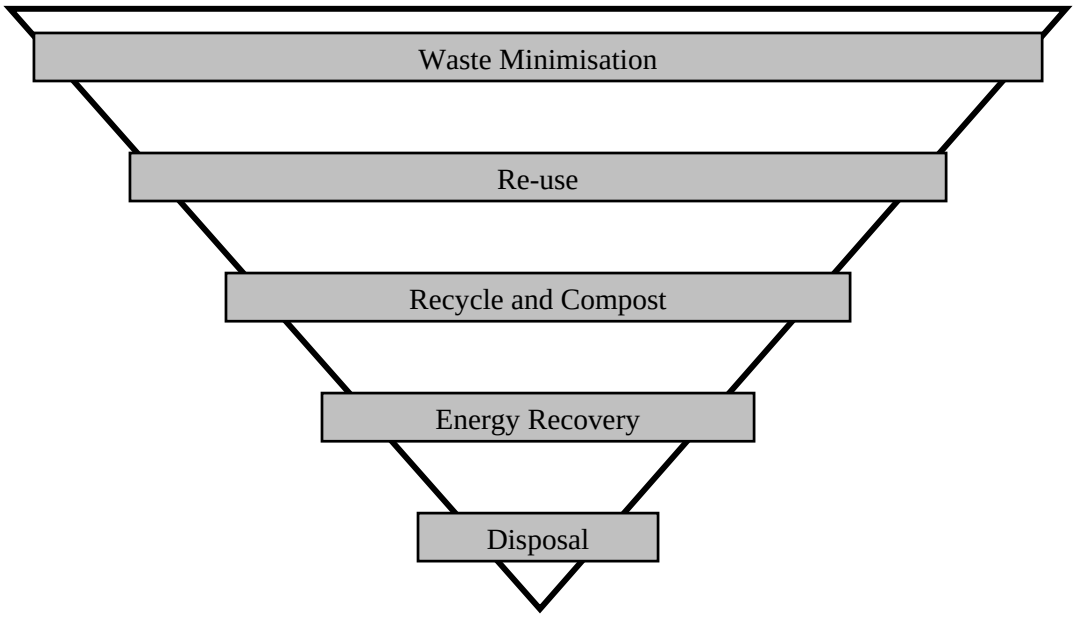
The main strategic objectives in relation to waste are:

Strategic Objective D: To drive the management of all waste up the waste hierarchy, towards the minimisation of waste production;

Strategic Objective G: To provide sufficient waste management facilities, in a timely and sustainable manner, in order for all waste to be managed as near as possible to its source.

6.1 The Waste Hierarchy

6.1.1 The waste hierarchy sets out the different types of waste management options in order of their sustainability. The most sustainable option is for waste arisings to be minimised so there is less waste to deal with, with the least sustainable option being the disposal of waste. The full waste hierarchy is set out below.



The waste hierarchy and the spatial planning system

6.1.2 The waste hierarchy is a key principle informing both the production of spatial planning documents in the Tees Valley and also the actual development of waste related facilities in the Tees Valley. However it is acknowledged that a spatial planning document is only one part of a wider waste management system, and it is this whole system which will bring about movement of waste management up the hierarchy. For instance a spatial planning document can be successful in moving up the hierarchy from disposal towards re-use, by the

allocation of land for facilities to recover energy, recycle and process waste for re-use. It is however less likely to be able to influence waste minimisation than other methods. Other strategies and policies outside of the planning system that will also influence how waste management moves up the waste hierarchy are the Municipal Waste Management Strategy, together with fiscal measures (Landfill Tax, Aggregates Levy, Landfill Allowance Trading Scheme) and the behaviour of businesses and individuals.

6.2 Waste Management Capacity Required

6.2.1 The predicted arisings of Municipal Solid Waste (MSW), Commercial and Industrial (C&I) waste and Construction and Demolition (C&D) waste are included in the replacement RSS for the period up until 2021. However the figures for MSW and C&I are currently being updated and therefore the updated figures are being used in this document, rather than those contained within the replacement RSS[15]. No updates are currently proposed for C&D waste or hazardous and therefore the existing figures are used for these two categories.

Municipal Solid Waste (MSW)

Table 6.1 Predicted MSW Arisings (tonnes)

Year	MSW (includes household waste)	Household Waste
2006/07	396,720	322,200
2010/11	429,566	355,046
2015/16	464,527	390.007
2020/21	494,304	419,784

6.2.2 From 2006/07 to 2020/21 it is estimated that municipal waste arisings in the Tees Valley will increase from 397,000 tonnes per year to 494,000 tonnes per year. If the national waste management targets are to be met, in 2021 371,000 tonnes of this amount will need to have value recovered from it, which will include 219,000 tonnes being recycled/composted. It has been identified that the Tees Valley has more than sufficient existing and planned capacity to deal with the recycling and recovery tonnages, along with the residual waste which needs to got to landfill, but that an extra 37,000 tonnes of composting

[15] Apportionment of Future Waste Arisings, Draft Waste Apportionment Report. Entec UK Ltd for the North East Assembly. October 2007

capacity will be needed by 2020/21[16]. However, this figure does not take into account four sites which are located outside of the Tees Valley and which hold contracts to compost green waste arising in the area. These sites have capacity to deal with up to 33,000 tonnes per year meaning that there is presently a shortfall of 4,000 tonnes. The provision of one composting site within the Tees Valley would enable this shortfall to be met, and also provide extra capacity to reduce the amount of green waste which has to be exported outside of the Tees Valley boundaries for composting.

6.2.3 Full details of the predicted arisings for MSW and household waste, and the calculations involved in determining the capacity gap, can be found in the Waste Background Paper.

6.2.4 Despite the sufficient capacity for recycling and recovery, it has been an aspiration of Stockton Borough Council to provide a Household Waste Recycling Centre in a more southerly location within the Borough for some time to increase access to such a facility for all residents and reduce the distance they need to travel. Presently the only Household Waste Recovery Centre in Stockton is at Haverton Hill, located in the north of the Borough. Two reports commissioned by Stockton-on-Tees Borough Council in 2006[17] supported the principle and feasibility of an extra Household Waste Recovery Centre and assessed some potential sites. In order to comply with the principles of sustainability it is considered that the allocation of an additional site in Stockton Borough is justified. A review of the existing Household Waste Recovery Centres in the Tees Valley is planned in order to identify whether the existing sites need to be upgraded or extended, or if additional sites are required. The results of the review will feed into the production of the DPDs as they become available.

[16] Apportionment of Future Waste Arisings, Draft Waste Apportionment Report. Entec UK Ltd for the North East Assembly. October 2007 and Tees Valley Joint Minerals and Waste Development Plan Documents: Waste Background Paper, Draft December 2007

[17] Siting and Feasibility Assessment for New Civic Amenity Site in Stockton on Tees, ERM for Stockton on Tees Borough Council, January 2006; and Site Assessment for New Civic Amenity Site, ERM for Stockton on Tees Borough Council, March 2006.

Commercial and Industrial (C&I) Waste

Table 6.2 Predicted C&I Arisings and Capacity Gap

Year	Tonnes	Recovery Target (73% from 2015)	Existing Capacity	Capacity Gap
2006/07	2,318,646			
2010/11	2,315,655			
2015/16	2,311,957	1,687,729	1,184,385	503,344
2020/21	2,308,303	1,685,061	1,168,149	516,912

6.2.5 It is estimated that 2,308,000 tonnes of C&I waste will need to be dealt with in the year 2020/21, which will be a slight decrease from 2,319,000 tonnes in 2006/07. It is recommended by the RSS that 73% of this amount will need to have value recovered from it every year from 2015. This equals 1,688,000 tonnes per year in 2015, falling to 1,685,000 tonnes in 2021. Many of the facilities that can deal with MSW can also deal with C&I waste but the industry will normally deal with MSW waste over C&I waste, as they are more likely to be able to sign longer term contracts for MSW. This being the case, the capacity in these facilities is allocated for MSW use first, and then any remaining allocated for C&I waste management. The updated figures for the RSS identify that by 2015 there will be a capacity gap of 503,000 tonnes for the recovery of C&I waste. The remaining C&I waste would be landfilled, and it has been identified that there is sufficient capacity in the existing landfill sites to accommodate this.[18]

Construction and Demolition (C&D) Waste

Table 6.3 Predicted C&D Waste Arisings and Capacity Gap

Year	Tonnes	Recovery Target (80%)	Existing Capacity	Capacity Gap
2006/07	1,294,000	1,035,200	497,328	537,872
2010/11	1,374,000	1,099,200	497,328	601,872
2015/16	1,480,000	1,184,000	497,328	686,672
2020/21	1,594,000	1,275,200	497,328	777,872

[18] Apportionment of Future Waste Arisings, Draft Waste Apportionment Report. Entec UK Ltd for the North East Assembly. October 2007 and Tees Valley Joint Minerals and Waste Development Plan Documents: Waste Background Paper, Draft December 2007

6.2.6 It is estimated in the RSS that in the Tees Valley, 1,594,000 tonnes of C&D waste will need to be dealt per year by 2021 and that 80% of this amount should be recycled. This equates to 1,275,000 tonnes of C&D waste being recycled per year. No information is available at a Tees Valley level on the current proportion of C&D waste which is recycled, but in the North East 39% of C&D waste was recycled in 2005[19]. If the same percentage applies in the Tees Valley, then an additional 778,000 tonnes of annual capacity will be required by 2021.

Hazardous Waste

6.2.7 Predictions for hazardous waste arisings are only provided for the North East as a whole, as the issue is considered of regional importance rather than sub-regional. However the RSS does identify that the priority for hazardous waste facilities should be in Tyne & Wear and the Tees Valley, as this is where the majority of the waste is produced. The amount of hazardous is forecast to rise from 567,000 tonnes in 2010/11 to 671,000 tonnes in 2021/22. Figures from the Environment Agency show that 399,150 tonnes of hazardous waste were dealt with by the North East in 2005[20] indicating that further capacity of at least 271,805 tonnes per year will be required. In particular, additional capacity for incineration, physical and chemical treatment, and solvent, oil, oil/water and metal recovery is required[21]

Importation of Waste into the Tees Valley

6.2.8 Many of the companies which manage the waste streams described above also import waste from outside the Tees Valley to be dealt with at their facilities. This importation of waste has been a source of economic success for these companies and it is anticipated that this situation would continue over the plan period. It is however considered that the Minerals and Waste DPDs should primarily concern themselves with ensuring that there is sufficient capacity in existing and allocated sites for the predicted waste arisings from the Tees Valley. Should the waste industry consider that additional capacity is required over and above this to deal with imported waste, they would be required to show evidence of this need, why it should be dealt with in the Tees Valley and any such sites could then be assessed using the relevant planning policies.

---

[19] Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005. Capita Symonds Ltd and WRc plc for DCLG. February 2007

[20] Hazardous Waste Production and Disposal, 2005. Environment Agency. From www.environment-agency.gov.uk Waste>Waste Overview>Waste Data>Waste Data Update 2005>Hazardous Waste 2005 (October 2007)

[21] Tees Valley Joint Minerals and Waste Development Plan Documents: Waste Background Paper, Draft December 2007

Capacity Required

6.2.9 Policy MWC6 therefore proposes that land is made available within the Tees Valley to allow the capacity requirements identified above to be met.

Policy MWC6: Waste Management Capacity

Land shall be made available for the development of the following facilities:

- One Household Waste Recovery Centre within Stockton-on-Tees Borough;
- For the composting of at least 4,000 tonnes of municipal solid waste per year by 2021;
- For the recovery of value of 505,000 tonnes, and the landfilling of 160,000 tonnes, of commercial and industrial waste per year by 2015;
- For the recycling of 500,000 tonnes of construction and demolition waste per year by 2021; and
- To allow the Tees Valley to make a significant contribution to the provision of at least 285,000 tonnes of hazardous waste treatment and management, per year across the North East.

Sewage Waste

6.2.10 Northumbrian Water Ltd has a number of sewage treatment works across the Tees Valley which treat the sewage arising from residential and commercial properties in the area. The discharges from these works have to meet the standards set in the licences and legislation governing the sites and the discharges are monitored by the Environment Agency to ensure that this does occur. These sewage treatment works need to be updated, extended and improved from time to time in order to meet improved standards, to cope with increased flows from new developments in their catchment area and to replace out of date kit. In addition to these sewage treatment works, the Tees Valley is also home to the Bran Sands Regional Sludge Treatment Centre. This facility treats the sludge produced from sewage treatment works around the North East, as well as providing treatment for effluent produced from nearby industrial developments. Planning permission has recently been obtained to develop advanced digestion facilities which will improve the efficiency of the treatment provided, and incorporate heat and power generation to make the centre more self-sufficient. Northumbrian Water Ltd have indicated that there may be opportunity to import waste, other than sewage, to the new facilities thereby helping to recover value from other waste streams. Northumbrian Water Ltd have not provided any information on future capacity requirements for Bran Sands or their other sewage treatment works in the Tees Valley, and it is known from previous planning applications that they deal with improvement works by extending/updating existing works wherever possible.

Policy MWC7: Sewage Treatment
Proposals for the increase of capacity or the improvement of treatment standards at existing sewage treatment facilities will be permitted provided that the applicants can demonstrate the need for the proposals and that the proposals will not have unacceptable impacts on local communities or the environment. Proposals for new sewage treatment facilities will only be permitted where it can be shown that the proposals can not be accommodated at existing sites and they conform with other relevant policies.
Reasons and Rejected Options:
The issue of sewage waste was not considered in the Issues and Options Report and was highlighted by Northumbrian Water Ltd in their response to that document. It has therefore been included in the Preferred Options Report.

6.3 Spatial Distribution of Waste Management Sites

Issue 13 of the Issues and Options Report

6.3.1 In order to provide facilities to bridge the capacity gaps identified above, and for these facilities to be successful and sustainable, sufficient land must be allocated in the correct places. The preferred approach to the spatial distribution of these facilities is contained in Policy MWC9. The approach has been chosen so as to take full advantage of the benefits offered by two distinct allocation methods.:

- allocating larger sites, incorporating clusters of waste management facilities; and
- allocating smaller, individual sites.

6.3.2 There are advantages to both approaches. The allocation of larger sites, incorporating clusters of waste management facilities, will encourage the development of symbiotic relationships between waste treatment and processing industries. These relationships will help the success of these businesses, as well as reducing the cost and distances that deliveries and supplies can incur. However, the provision of smaller, individual sites, particularly household waste recycling sites, throughout the Tees Valley will help to reduce the number of journeys required by allowing waste to be bulked together and also the length of journeys as they will be more convenient to local populations.

6.3.3 The preferred option is therefore to employ a combination approach which looks to utilise all of the benefits on offer.

Policy MWC8: Spatial Distribution of Waste Management Sites

A combination of large sites, including clusters of related waste management facilities, and small sites for individual waste facilities, shall be utilised to meet the capacity requirements set out in Policy MWC6. Wherever possible, all proposed waste sites should seek to utilise previously developed land. The larger sites shall be located in the traditional industrial areas around the River Tees, as defined on the Minerals and Waste Allocations Map, and should seek to make use of the rail and port infrastructure available in these locations wherever possible. The smaller sites shall be located throughout the Tees Valley and be well related to the urban area.

Reasons and Rejected Options:

Options rejected in Issue 13 were to use only large developments, either around the River Tees or throughout the Tees Valley, or only smaller individual sites. A preference for a combination approach of larger sites around the River Tees and smaller sites spread throughout the sub-region was identified in the Issues and Options comments and the sustainability appraisal. The sustainability appraisal also recommended the inclusion of text stating that previously developed land would be preferred for sites, and that rail and port facilities should be utilised, wherever possible.

Issues 14, 15 and 16 of the Issues and Options Report

6.3.4 The Issues and Options report defined different approaches to the allocation of waste sites, including:

- using either a focussed description of waste management operations suitable for an allocated site or a more flexible, open-ended description;
- the allocation of specific sites or of wider areas of search;
- the allocation of new sites or by utilising or extending existing sites.

6.3.5 The combination of these factors will be important as it will determine how flexible the allocations will be towards different developments. This is an important issue as responses we have received to date during the production of the DPDs indicate that there is a difference of opinion as to what level of flexibility should be provided. Responses from the industry received at the workshop held in December 2006, were that a flexible approach would be preferable to allow them to react more easily to changing circumstances in the future. However the responses to the Issues and Options consultation were heavily in favour of a more focussed approach which would provide a high degree of certainty as to what would take place on the allocated site. Both approaches have their benefits and therefore the policy has attempted to provide a suitable balance between the two by:

- ensuring the description of each site sets out what waste type (MSW, C&I, C&D, Hazardous) will be dealt with, and the general treatment process but without limiting the site by specifying what technologies, facilities, etc could be placed on it;
- provide a clear location and set boundaries for each allocation;
- where possible, look to utilise existing sites, including extensions to these sites.

6.3.6 The allocation of sites will also seek to utilise previously developed land wherever possible.

Policy MWC9: Allocation of Waste Management Facilities

The site allocations made in the Minerals and Waste DPDs shall:

- describe what type of waste the site would deal with on site;
- provide a clear cut location and boundaries for the site; and
- where possible, utilise existing sites, including extensions to these sites.

All allocations shall seek to utilise previously developed land.

If it is not possible for an allocation to follow these principles, the reasons why, and a statement of how the allocation would still be sustainable, must accompany the allocation.

Reasons and Rejected Options

In the Issues and Options Report, Issue 14 considered the approach taken to describing allocated sites. As detailed in paragraph 6.3.3 opinions on this matter were mixed but the Sustainability Appraisal found that Option B (focussed description) was the more sustainable option. The decision has therefore been made to provide a good level of focus to the descriptions, but not to describe the exact technology or facilities, thereby leaving a degree of flexibility in place. Issue 15 considered how the land itself should be allocated. Option D to not allocate sites and assess all proposals against policies was discounted due to national policy guidelines. Comments received were mixed, with a slight favour towards a combination of specific sites and areas of search, but also with support for specific sites only. The Sustainability Appraisal found that specific sites were the most sustainable option and this was therefore chosen. Issue 16 looked at whether the focus for allocations should be on existing sites and extensions to them or new sites. Comments received were heavily in favour of a combination approach but the Sustainability Appraisal identified a number of uncertainties for this option, and concluded the use of existing sites would be the most appropriate. It also recommended that the policy should maximise the use of previously developed land and therefore this has been added to the policy.

7. Monitoring and Implementation

7.1.1 Within the Annual Monitoring Reports produced by each of the Boroughs, a review of the progress made through their Local Development Frameworks is considered. The Annual Monitoring Reports examine whether the timescales of the Local Development Scheme are being met and how well the policies are meeting the objectives. It can then be identified if any part of the Local Development Framework requires revising or updating.

7.1.2 The following table sets out how the policies in the Minerals and Waste Core Strategy can be assessed, how they can be implemented and which bodies will have responsibility for the successful implementation.

Policy	Indicators	Implementation / Delivery	Responsibility
MWC1: Sustainable Development	This policy relates to all planning decisions and adherence with other relevant policies would ensure adherence with MW1.	All parts of the Local Development Framework Determination of planning applications	Minerals and Waste Planning Authority Developers
MWC2: Alternative Materials for Aggregates Use.	Number of sites used for production of alternative aggregates Secondary aggregates production information in NE RAWP report	Policies and Sites DPD Determination of planning applications	Minerals and Waste Planning Authority Developers NE RAWP
MWC3: Marine Dredged Sand and Gravel	Land use adjacent to Tees Wharf and Cochranes Wharf The continued use of the wharves for sand and gravel landings	Land allocations within Local Development Frameworks Determination of planning applications	Local Planning Authority Developers

MWC4: Potash	Land use adjacent to rail line and port facilities used by Cleveland Potash Ltd The continued use of the facilities for the transport of potash	Land allocations within Local Development Frameworks Determination of planning applications	Local Planning Authority Developers
MWC5: Minerals Sterilisation	Planning permissions within safeguarding areas, and any associated, prior, minerals extraction The continued working of the existing minerals extraction sites	Determination of planning permissions	Local Planning Authority
MWC6: Waste Management Capacity	Planning permissions. Information held by Environment Agency, Department of Communities and local Government, DEFRA, North East Assembly/RSS and Minerals and Waste Planning Authorities on waste figures, licences and sites.	Policies and Sites DPD Determination of planning applications	Minerals and Waste Planning Authority Environment Agency
MWC7: Sewage Treatment	Environment Agency monitoring of Northumbrian Water Ltd sites Planning permissions for Northumbrian Water Ltd projects	Determination of planning applications	Minerals and Waste Planning Authority Northumbrian Water Ltd Environment Agency
MWC8: Spatial Distribution of Waste Management Sites	Planning permissions for waste management facilities.	Policies and Sites DPD Determination of planning applications	Minerals and Waste Planning Authority
MWC9: Allocation of Waste Management	Sites allocated within the Policies and Sites DPD	Policies and Sites DPD	Minerals and Waste Planning Authority

Management Facilities			

Appendix A
Sand and Gravel Wharves: Safeguarding Areas

2 Pages

Appendix B
Minerals Extraction: Safeguarding Areas

4 Pages

Appendix C
Glossary and Abbreviations

3 Pages

Aftercare:	Following the restoration of developed land, the management of the restoration measures for a period of time to ensure they are successful.
Aggregates:	Minerals that are used in construction processes such as concrete manufacture and road making.
Autoclave:	A waste treatment process, where waste is heated under pressure to clean and separate the different materials.
Biodiversity Action Plan (BAP):	Provides a detailed plan for the protection and enhancement of biodiversity in a particular area.
British Geological Society (BGS):	Provides geo-science and geological advice to the Government and to industry, educational establishments and the public.
Commercial and Industrial (C&I) Waste:	Waste which is produced from commercial companies, such as shops and banks, and from industrial processes such as manufacturing.
Composting:	The controlled decomposition of plant life to form compost, which can then be used to improve existing soils, or as soil replacement itself.
Construction and Demolition(C&D)Waste:	Waste that arises from construction activities like building works, and from the demolition of buildings and structures.
Department of Communities and Local Government (DCLG):	Central Government office which has responsibility for planning.
Department for Environment, Food and Rural Affairs (DEFRA):	Central Government office with responsibility for matters involving the environment, food production and rural areas.
Development Control:	The process undertaken by Local Authorities where they make decisions on whether to approve or refuse planning applications.
Development Plan Documents (DPDs):	The Documents within a Local Development Framework which outline how planning will be managed in a particular area.
Disposal:	When waste is managed without any value being recovered from the waste, normally through landfill.
Energy from Waste (EfW):	The name given to the energy recovery process used by SITA in the Tees Valley, where waste materials are used as fuel to generate electricity.
Energy Recovery:	Waste, or by products from the processing of waste, are used as a fuel to generate heat or electricity.
Government Office North East (GONE):	The representatives of the Central Government in the North East of England.

Habitats Risk Assessment (HRA):	Also known as Appropriate Assessment. An appraisal of a document to determine its effect on European level sites of nature importance.
Hazardous Waste:	Waste which has specific properties which make it dangerous or harmful to human health or the environment.
Household Waste Recycling Centre (HWRC):	Formerly known as Civic Amenity sites. A facility where residents of an area can deposit waste, which is then sent fro re-use, recycling, composting etc.
JMWMS:	Joint Municipal Waste Management Strategy; a management strategy focusing on waste collected by or on behalf the five Borough Councils in the Tees Valley.
Joint Strategy Unit (JSU):	See 'Tees Valley Joint Strategy Unit'
Landfill:	Where waste is disposed of by burial in the ground. Traditionally the most popular method of waste management in the UK.
Local Development Frameworks (LDF):	A folder of documents which outlines how planning will be managed in a particular area.
Local Development Scheme (LDS):	Sets out what documents will be included in a Local Development Framework, and when they will be produced.
Minerals Planning Guidance (MPG):	National planning policy and guidance on minerals, published by central Government. They are being replaced by Minerals Planning Statements, but remain adopted policy until withdrawn.
Minerals Planning Statements (MPS):	National planning policy on minerals, published by central Government. Replacing Minerals Planning Guidance.
Municipal Solid Waste (MSW):	Waste which is collected by Local Authorities and can include wastes from households, public litter bins and Household Waste Recovery Centres.
NE RAWP:	The North East Regional Aggregates Working Party. Provides advise on the provision and planning for aggregates in the North East.
Northumbrian Water Limited (NWL):	Responsible for water supply and sewage treatment and disposal in the North East.
Nuclear Waste:	Waste which contains radioactive elements and can come from sources including the medical profession and nuclear fuel production.
Office of the Deputy Prime Minister (ODPM):	Central Government office which formerly held responsibility for planning matters. Now replaced by the Department of Communities and Local Government.
Planning Policy Guidance (PPG):	National planning policy and guidance on a range of issues, published by central Government. They are being replaced by Planning Policy Statements, but remain valid until withdrawn.
Planning Policy Statements (PPS):	National planning policy on a range of issues, published by central Government.
Primary Aggregates:	Materials that are used in construction processes, and are sourced from their natural locations in the ground.
Reclamation:	The process of restoring land following development (restoration) and the management of the restored land (aftercare).

Recovery (of value):	The management of waste in a way which recovers value from the waste. Recovery incorporates re-use, recycling, composting and energy recovery.
Recycling:	The processing of materials found within waste streams into another form, which can then be used for a beneficial use.
Restoration:	The process of restoring developed land to its original state, or to another beneficial use.
Re-Use:	Where materials found in waste streams are re-used without the need for them to be re-processed into another form.
Regional Planning Guidance (RPG):	Has now been renamed as Regional Spatial Strategy.
Regional Spatial Strategy (RSS):	Contains planning policies and guidance on a regional level. Formerly known as Regional Planning Guidance (RPG).
Secondary Aggregates:	Materials that are used in construction processes, and are sourced from the by-products of industrial processes or salvaged from demolition activities.
Statement of Community Involvement (SCI):	Provides details as to how the Community will be involved in the planning process in a particular area.
Sub-Region:	The Tees Valley is a sub-region of the North East region, along with County Durham, Tyne and Wear and Northumberland.
Sustainability Appraisal (SA):	An appraisal of a document throughout its production process, which determines how sustainable it is, and how it could be made more sustainable.
Tees Valley:	The southern part of the North East region, consisting of the Boroughs of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton.
Tees Valley Joint Strategy Unit:	An organisation which works with the five local authorities of the Tees Valley on strategic issues which have relevance across the whole area.
Waste Audit:	Details how the waste arising during the life of a development will be managed.
Waste Minimisation:	Where the amount of waste produced from a specific source is minimised. The need to manage this waste is therefore reduced.
Waste Management Strategy:	Provide details on how waste will be managed in a particular area over a set period of time.

Appendix D
Supporting Documents

X Pages

The following documents have all been directly referenced within the Core Strategy Preferred Option Report:

i) Annual Aggregates Monitoring Report 2005, North East Regional Aggregates Working Party, October 2007

ii) Apportionment of Future Waste Arisings Draft Waste Apportionment Report, Entec UK Ltd for North East Assembly, October 2007

iii) Correspondence between North East Regional Aggregates Working Party and Sherburn Stone, letters dated 10th and 12th January 2007

iv) Hazardous Waste Interrogator www.environment-agency.gov.uk downloaded September 2007

v) Hazardous Waste Production and Disposal 2005 www.environment-agency.gov.uk downloaded October 2007

vi) North East England Regional Spatial Strategy Proposed Changes to the Submitted Draft, Government Office North East, May 2007

vii) Northumberland Minerals and Waste Development Framework Core Strategy preferred Options, Northumberland County Council, September 2006

viii) Minerals Planning Factsheet: Salt, British Geological Survey, 2006

ix) Population and Household Projections for the Tees Valley 2003 - 2021, Tees Valley JSU, June 2005

x) Tees Valley Joint Minerals and Waste Development Plan Documents: Habitats Risk Assessment), Entec UK Ltd for Tees Valley Joint Strategy Unit, DATE

xi) Tees Valley Joint Minerals and Waste Development Plan Documents: Statement of Compliance with Regulation 28, Entec UK Ltd for Tees Valley Joint Strategy Unit, DATE

xii) Tees Valley Joint Minerals and Waste Development Plan Documents: Sustainability Appraisal (incorporating Equality Impact Assessment), Entec UK Ltd for Tees Valley Joint Strategy Unit, DATE

xiii) Tees Valley Joint Minerals and Waste Development Plan Documents: Waste Background Paper, Entec UK Ltd for Tees Valley Joint Strategy Unit, DATE

xiv) Site Assessment for New Civic Amenity Site, ERM for Stockton on Tees Borough Council, March 2006.

xv) Siting and Feasibility Assessment for New Civic Amenity Site in Stockton on Tees, ERM for Stockton on Tees Borough Council, January 2006

xvi) Statistics pages from www.teesvalley-jsu.gov.uk downloaded November 2007

xvii) Strategic Waste Management Information 2002-03 www.environment-agency.gov.uk downloaded October 2006

xviii) Survey of Arisings and Use of Alternative Primary Aggregates in England 2005, Capita Symonds Ltd and WRc plc for Department on Communities and Local Government, February 2007