Minerals Core Strategy

Key Issues and Options

Prepared jointly by
Derbyshire County Council
and Derby City Council

April 2010

DERBY CITY COUNCIL

DERBYSHIRE County Council
Improving life for local people

FOREWORD

Minerals are increasingly important to our way of life. As well as their obvious importance to construction projects (houses, factories, roads) they are also used in a huge range of everyday products such as paints, paper and toothpaste, so they are something that we all use and benefit from. They are a valuable and finite resource which must be managed carefully.

Derbyshire is rich in minerals, making the county one of the most important in the UK for these resources. The minerals are important both nationally and locally in terms of jobs and wealth creation. However, the same geology which gave rise to this wealth of resources also created the striking landscapes which are important to Derbyshire people, the visitor industry and the local economy. Unfortunately, mineral working almost always causes some impact on the environment. The challenge now is how to find the best balance between all these considerations in Derbyshire over the next 20 years or more.

The only way to achieve the best balance is to plan realistically for the long term. The Minerals Core Strategy will form the heart of this process. It will set out the vision for how we think Derby and Derbyshire should look in terms of minerals provision and extraction to 2030 and beyond. It will guide the scale of future working, potential locations, and the principles we will use to decide planning applications for quarrying.

This document is a key step towards the preparation of the Core Strategy. It sets out some of the main issues we will need to address and suggests how we could deliver an environmentally sound plan that will have the support of communities *and* the minerals industry. You will be able to read the arguments why we must recognise that some quarrying needs to take place in Derbyshire. Whilst we do have some choices about places, it is an obvious truth that minerals can only be quarried where they occur. There are, therefore, difficult decisions to make that will have long term implications. We need your views on what you think are the best options.

CONTENTS

Note: words ***in bold italics*** are explained in the glossary

1 Introduction

1.1 ***Minerals*** have become an increasingly important part of our everyday lives. They play an essential role in contributing towards social and economic progress through their many uses. These include the provision of bulk and specialist materials for the construction and maintenance of road, rail and industrial infrastructure, the provision of raw materials and finished products in the building of homes, hospitals, schools and workplaces, for industrial processes and for use as fuels. Minerals are also consumed in processes connected with the manufacture of many products that we use and have come to rely upon on a daily basis, for example, paint, paper and toothpaste.

1.2 Derbyshire provides a significant proportion of some of the minerals used in the UK. Minerals are a finite resource and are only available in a limited number of locations, often coinciding with some of our most attractive landscapes. The exploitation of mineral reserves is unlike other forms of development in that it can only take place where the mineral occurs and can result in adverse social and environmental impacts. The extraction and transportation of minerals also have the potential to give rise to environmental pollution affecting the amenity of local residents. Mineral extraction can however also lead to benefits, through for example the enhanced ***restoration*** of sites, which may, for example, assist ***biodiversity*** and facilitate recreational after-uses.

What is the purpose of the Minerals Core Strategy?

1.3 The Derby & Derbyshire Minerals Core Strategy (the "plan") is being prepared jointly by Derbyshire County Council and Derby City Council. The plan will seek to balance and reconcile conflicting interests in order to manage minerals development in a way which provides the best result for Derbyshire. It will look forward to 2030 and will include policies and proposals to ensure that development takes place in a way which causes the least harm to people and the environment. It will show the places or localities where future working of minerals will take place, giving greater certainty to businesses and local communities. It will include measures to help minimise and adapt to the impacts of climate change.

1.4 The plan will replace the policies of the Derby & Derbyshire Minerals Local Plan, which was adopted in 2000 (with an alteration to coal policies in 2002). There have been significant changes in government policy since the Minerals Local Plan was adopted and a more up to date plan is required to guide development over the next 20 years. Some

of the policies in the Minerals Local Plan may still be relevant, however, and can be used to inform the development of new policies.

1.5 **The plan will cover the area of Derby and Derbyshire outside the area of the Peak National Park, which is responsible for its own planning arrangements. For convenience, the area of the plan is referred to throughout this document as "Derbyshire".**

Preparing the Plan

1.6 We started preparing the plan in March 2009. Since then, we have been collecting information, which has been essential in developing our knowledge and understanding of the issues involved. We have also talked to many people and organisations who have given us some useful ideas on what should be included in the plan. We are now calling on all the people, businesses and organisations that have an interest in minerals planning in Derby and Derbyshire to comment on this document. These comments will be important in helping us to prepare the plan. We aim to complete the final draft of the plan in 2012 and seek the Government's approval, before adopting it in 2013.

What is the purpose of this consultation?

1.7 This document is the first wide-ranging stage of consultation on the plan and is aimed at the whole community, including members of the public, businesses and environmental groups.

1.8 We need to make a ***sound*** plan. To do that, we need to have sufficient background knowledge, the most important parts of which we have set out in the first part of this document;

- We know what is expected of us by the Government, and what the plan for our region says about minerals development in our area (chapter 2);
- We know a lot about the special characteristics of Derby & Derbyshire (chapter 3)
- We have gathered information about minerals and their extraction in Derby and Derbyshire (chapter 4)

We need you to tell us anything that you think will add to our knowledge or will help us make a sound plan.

1.9 In the chapters that follow the background information, we have set out a suggested spatial vision for minerals development (chapter 5), from which flows the plan objectives (chapter 6).

1.10 In chapter 7, we set out what we see as the major issues that Derby and Derbyshire are likely to face in terms of mineral extraction over the long term. We have provided some possible solutions to these problems and are seeking your views on them.

1.11 Those are not easy decisions but, if you give us your opinions on what approach we should take, you will help us to get them right.

How you can respond

1.12 The consultation period for this document is 8 weeks long, starting on the 30th April 2010 and ending on the 25th June 2010. Please feel free to comment on any aspect of these issues and options. The documents are available on our website at www.derbyshire.gov.uk/planning/planning_policy

1.13 You can email your comments to wasteminsldf@derbyshire.gov.uk or write to: Development Plan Team (Minerals) at Derbyshire County Council, Shand House, Dale Road South, Matlock, DE4 3RY.

Further Information

1.14 Alongside this Issues & Options Consultation document, a background document is available. This includes a series of evidence base papers on each of the major minerals found in Derbyshire. These papers draw on information from a wide variety of sources and represent the current status of our knowledge on these minerals. They include information on the uses, geology, production and consumption figures, reserves, methods for their exploration, working and reclamation and markets of the mineral concerned. We would be pleased to receive any further information or comments that may help us develop these papers. They will be updated and developed as we progress the Plan.

1.15 At the end of this background document, there is also a paper on minerals safeguarding which sets out how we will define safeguarding areas for different types of mineral to ensure that they are not sterilised unnecessarily by other development and, therefore, that they will be available for use by future generations.

PART ONE: BACKGROUND INFORMATION

2 Policy Context

2.1 When preparing a plan, the Councils do not start with a blank sheet of paper. There is a range of legislation, guidance and policies at the international, national and regional and local level, which the plan must take full account of. This section of the document sets out the most significant national and regional policy background to minerals planning. The ***Sustainability Appraisal*** scoping report sets out a fuller analysis of these policies.

National and Regional Policy

2.2 It is important that the Core Strategy should not repeat national and regional policy. National and regional policy provides the framework within which local policy is developed.

2.3 **Minerals Policy Statement 1** (MPS1) (2006) sets out national Government policy for minerals planning and provides the parameters from which we must develop the policies and proposals within the Minerals Core Strategy. Whilst preparing our plan we must take the following into account. Below is a summary of its main policy guidance under two broad objectives.

2.4 **Sustainable Development of Mineral Resources**

- We must make provision for ***aggregate*** minerals (crushed rock and sand & gravel), through the identification of sites/areas of search, to meet the agreed sub regional (county) ***apportionments*** of the National and Regional Guidelines for aggregate, and to maintain ***landbanks*** to ensure sufficient provision over the period of the strategy. (*MPS1, Paragraphs 3.6 & 3.7*)
- We must ensure the most prudent, efficient (reduction of mineral waste) and sustainable use of minerals and the greater use of recycled material to help minimise the need for primary mineral extraction. (*MPS1, Paragraphs 9 & 18*)
- An important aspect of the sustainable use of minerals is to encourage the use of high quality materials only for the purposes for which they are most suitable, for example to ensure that the relatively scarce, high quality dolomitic limestone is used primarily for industrial processes and not as an aggregate. (*MPS1, Paragraph 18*)

- We should ***safeguard*** resources from ***sterilisation*** by other non-mineral developments (e.g. housing and industry) to ensure that future generations have sufficient supplies of minerals to meet their needs. We should also encourage the prior extraction of minerals if it is necessary for non-mineral development to take place in mineral safeguarding areas. (*MPS1, Paragraph 13*)

2.5 **Ensuring the Impact of Mineral Extraction on the Built and Natural Environment is Minimised**

- The overall quality of the natural and built environment must be protected and, through good working practices, there must be minimal disruption to local communities during extraction. (*MPS1, Paragraph 17*)
- Internationally and nationally designated areas of landscape value and conservation importance must be protected. (*MPS1, Paragraphs 9 & 14)*
- We must seek local supplies to reduce the impact of transportation on the environment and to help reduce the carbon footprint of the industry. *(MPS1, Paragraph 15)*
- We must promote the sustainable transport of minerals by modes of transport other than road, for example by rail or on inland waterways. (*MPS1, Paragraph 16*)
- Once extraction has ceased, high standards of restoration and aftercare of mineral sites should provide for environmental enhancement and long term potential of the land for a wide range of ***after-uses***. (*MPS1, Paragraph 19*)

2.6 **PPS1 (Planning and Climate Change)** sets out how planning, in providing for the new homes, jobs and infrastructure needed by communities, should move us towards sustainable development and, in particular, help shape places with lower carbon emissions and which are resilient to the climate change.

2.7 **The East Midlands Regional Plan** (The Regional Spatial Strategy - RSS8) was adopted by the ***East Midlands Regional Assembly*** in March 2009. The following priorities are highlighted in respect of minerals and should be taken into account in developing the Core Strategy:

- It tells us to identify environmentally acceptable sites to maintain an appropriate supply of aggregates and other minerals of regional or national significance.
- Taking the Government's National and Regional Guidelines for Aggregates (crushed rock and sand & gravel) Provision, it sets out the amount of aggregate that the county will have to provide. This figure determines the number and size of sites that we will

have to allocate for aggregate extraction in Derbyshire. We have to ensure that we provide sufficient sites to meet the agreed apportionments.

- It states that there must be a progressive reduction in the proportion and amounts of aggregate and other land won minerals that are quarried from the Peak District National Park. This may have implications for provision elsewhere in the region, particularly Derbyshire, in terms of other MPAs having to provide a greater share of aggregates to compensate.
- It reiterates national policy that we must indicate areas of minerals that should be safeguarded from sterilisation by other forms of development that would sterilise resources of economic value for future exploitation i.e. to ensure the protection of valuable mineral resources for use by future generations.
- It says that we should identify and safeguard opportunities for the transportation of minerals by rail water or pipeline, including railhead and wharfage facilities and also sites for the recycling of materials.
- It requires us to identify likely adverse impacts on habitats and propose mitigation measures and to set out the proposed uses to which former mineral sites should be put.

2.8 These national and regional policies, along with many others, will guide this Strategy and the issues they generate in Derbyshire are highlighted in subsequent chapters of this document.

Key Points from the Policy Context Section

We are required by the Government to:

- **Make necessary provision for minerals**
- **Ensure the sustainable and efficient use of minerals**
- **Encourage greater use of recycled materials to replace primary minerals**
- **Safeguard minerals for future generations**
- **Ensure protection of the communities and the environment**
- **Reduce the impact of transportation**
- **Require high standards of restoration**
- **Assist in the progressive reduction of quarrying in the Peak Park**
- **Play our part in responding to climate change issues**

3 A General Portrait of Derbyshire

3.1 We are developing a spatial portrait of Derbyshire, which is a description of the county in terms of its social, economic and environmental characteristics which are most relevant to mineral planning. This will help us to focus on the characteristics and assets of Derbyshire which are most important in planning for future mineral development. People who attended the stakeholder workshop in July 2009 have provided helpful input to this chapter.

3.2 Diagram 1 gives a picture of the geography of Derbyshire. It shows the National Park, a largely upland area which makes road transport difficult, and it shows the main roads and railways, river valleys, towns and other features. Also, it shows the major places, such as Sheffield, Nottingham and Manchester, which are outside the county but are important markets for some of the County's minerals.

Introduction

3.3 Derbyshire is located in central England, in the East Midlands Region and is easily accessible to and from a number of neighbouring conurbations, including Manchester, Sheffield, Leeds and Nottingham. A large part of the mainly rural, north western area of the geographical county lies within the Peak District National Park, though outside the area of this plan. Derbyshire has a wealth and diversity of important mineral resources. These bring benefits to the county, in terms of jobs and wealth but also potential disbenefits, particularly in terms of the possible environmental impact of extracting the minerals. The legacy of large scale coal extraction, particularly in the east of the county, left large areas with significant social, economic and environmental problems. Regeneration is leading to the recovery of these areas, particularly in environmental terms, with initiatives such as the East Derbyshire Woodland Project.

Population

3.4 Derbyshire (including Derby) has a population of around 995,000* with a demographic growth rate slightly above the national average. The majority of the population lives in urban areas, with three quarters living in a series of small towns in the eastern half of the county. The City of Derby, with a population of some 240,000, is the largest settlement and lies in the south of the county. Chesterfield is the other major town in the county, lying in the north east, having a population of around 100,000.

* 2007 Population Estimate, ONS

Economic and Social Conditions

3.5 Derbyshire is a county of great variety, much of it rural in character, but it also contains a number of urban areas, which are based historically on coal mining and other heavy industries. Some of the older urban areas also contain significantly deprived populations, especially in Derby and within the former coalfield areas. Within these areas, there are seventeen **"*Super Output Areas"*** which are amongst the 10% most deprived areas in the country. As in all areas, there are strong correlations between health and deprivation, so the most deprived areas of the county, in terms of health, are in areas within Bolsover, Chesterfield, and North East Derbyshire Districts. Elsewhere, the general health of 90.1% of Derbyshire's household population was defined as good or fairly good in the 2001 Census, slightly below the national rate of 91.2%.

3.6 Much of the employment in the plan area is still dominated by manufacturing industries to a greater extent than the national average, but this is declining as employment in service industries increases. In 2001, only 1% of employment in the county was in mining and quarrying, which was higher than the regional average of 0.7% and twice the national average. Employment in this sector was generally spread across the county, except in Derby where there are very few people employed in this sector. There has been a very significant decline in employment levels in this sector over the last two decades, especially with the decline of the coal industry. Unemployment rates at 3.2 % in the county overall are slightly below the national average but this masks significant variations in Chesterfield and smaller areas across the county, such as inner areas of Derby and parts of the former coalfield areas, which have significantly higher levels of unemployment.

Transport

3.7 Derbyshire generally has a good quality road transport network, which provides excellent links to other regions. These roads include the M1, the A38, the A61 and the A50. In line with the rest of the country, traffic levels have significantly increased throughout the plan area over the last few decades, but at a slightly slower rate than the regional average. 61% of Derbyshire's boundary adjoins neighbouring regions and the county is greatly influenced by conurbations just outside its boundaries in terms of transport movements. There are relatively frequent short-distance movements of minerals across these boundaries, which are likely to continue in the future.

3.8 A significant issue in Derbyshire in relation to transport is the impact of heavy lorries, including mining and quarrying traffic, on local communities and other road users. In some areas, heavy goods vehicles can account for up to 25% of traffic. The Derbyshire Community Strategy seeks to reduce congestion on roads and to limit the environmental impacts of transport. These aims are reflected in the priorities of the Derbyshire Local Transport Plan, which covers the period 2006-2011.

3.9 There is a somewhat fragmented railway system in the county with five separate operators. The majority of routes carry freight.

3.10 In terms of air quality, a number of areas suffer from air pollution, mainly associated with traffic and within the plan area, seven areas are covered by Air Quality Management Areas. These are in Derby, Erewash and Bolsover and North East Derbyshire.

Natural Heritage

3.11 The county exhibits areas of ecologically important and high quality landscape, from the upland limestone scenery and gritstone moorlands in the north of the county, adjacent to the Peak District National Park, through the rolling pasturelands in the central swathe to the broad river valleys in the south. The eastern and southern parts of the county exhibit some of the legacy of large-scale coal extraction.

3.12 The character of Derbyshire's landscape has been assessed and each landscape type has been categorised, helping the assessment of proposals for development in terms of their impact on the landscape.

3.13 Much of the area of the county is farmland, almost all of which is classified as grade 3 and 4, with a small amount of grade 2 land to the south of Ashbourne.

3.14 The three main rivers in the county are the Trent, the Derwent and the Dove. 95% of the length of these rivers is classified as being good or fair chemical water quality and, as measured by biological quality, this rises to 97%. All the rivers have important flood defence regimes, including functional flood plains, which need protecting, especially with the additional stress put on them from the possible effects of climate change.

3.15 Derbyshire contains significant areas of ecological importance, and supports valuable populations of national and local Biodiversity Action Plan (BAP) priority species.

Changes in farming practices over the past 50 years have, however, resulted in loss of hedgerows, wetland and floodplain habitats.

3.16 The Regional Biodiversity Strategy has shown three Biodiversity Conservation Areas (BCA) partially located in Derbyshire, excluding the Peak District National Park. The most important regional resources for biodiversity are found at Sherwood near Bolsover, and in the Derbyshire Peak Fringe and Lower Derwent, and in part of Charnwood in South Derbyshire. However, two Biodiversity Enhancement Areas (BEAs) lie partially in the county on its eastern boundary and in the National Forest in South Derbyshire. These are areas where the biodiversity heritage is poorest and most in need of enhancement.

3.17 ***Special Areas of Conservation*** (SACs) are designated under the EC Habitats Directive and form part of the Natura 2000 Network of internationally important wildlife sites. SACs in Derbyshire, outside the Peak District National Park, are:

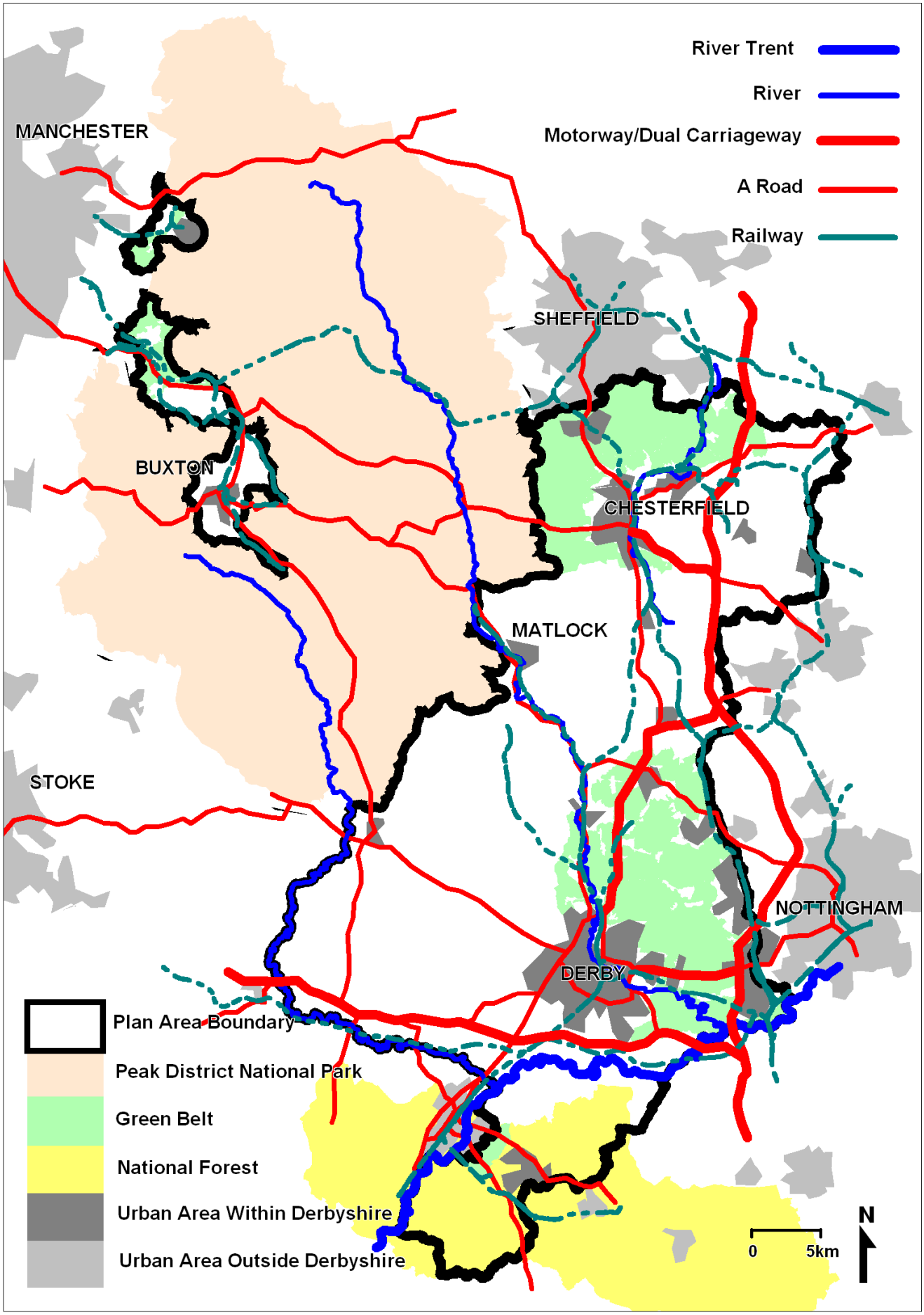
- Bee's Nest and Green Clay Pits on the south eastern edge of the Peak District;
- Gang Mine; also on the south eastern edge of the Peak District; and
- River Mease on the border of South Derbyshire and Leicestershire.

3.18 In terms of other designations for biodiversity, there are 87 Sites of Special Scientific Interest (SSSIs); 1 National Nature Reserve (at Calke Abbey, 12 km south of Derby managed by the National Trust); and around 1100 local wildlife sites and 101 Regionally Important Geological Sites, half of which lie within the Derbyshire Dales area.

Built Heritage

3.19 Derbyshire has a wealth of archaeological and historic features and sites with 9,500 entries on the Sites and Monuments Record; 1,476 Scheduled Monuments; 5,941 Listed Buildings and 486 Conservation Areas. The Derwent Valley Mills World Heritage Site, lying between Matlock Bath and Derby, is of international importance and is also a significant tourist attraction.

Figure 1: Map of Derbyshire



Key Points from the General Portrait:

- **Derbyshire is located in Central England close to a number of large conurbations which contribute to demand for minerals**
- **Derby and Chesterfield are the largest conurbations in the plan area.**
- **A large part of the rural north western area of Derbyshire has much in common with the adjoining Peak District National Park**
- **Varied landscape with areas of high environmental and ecological quality**
- **Wealth of archaeological and historic built features**
- **Generally good road network in the east and south of the county, less good in the west and north west**
- **There are potential environmental and social impacts from HGVs**
- **Declining manufacturing and increasing service sectors**
- **Wealth of nationally important mineral resources**
- **Legacy of coal extraction but reclamation and regeneration projects have had a positive impact on the area.**

4 A Portrait of Minerals in Derbyshire

Geology of Derbyshire

4.1 The limestones, sandstones and coal measures, which are today exploited commercially in Derbyshire, were formed during the Carboniferous, Permian and Triassic Periods, which covered the time between 354 and 200 million years ago.

4.2 The river valley sand and gravels were laid down much more recently, during the last ice age (around 14,000 years ago). Large amounts of sand, gravel, silt and clay were eroded rapidly by glacial melt waters and deposited in wide tracts alongside the major rivers.

Mineral Resources in Derbyshire

4.3 In terms of quantity, Figure 2 shows that by far the most significant mineral extracted in Derbyshire is limestone, accounting for over 90% of all minerals produced (by weight). The next most significant mineral produced in Derbyshire is sand and gravel (9% of production).

4.4 Minerals extracted in smaller amounts include coal (<1%), vein minerals (mainly fluorite & barytes), gas, sandstone, silica sand & clay and shale (all less than 0.1% of the total county production by weight). Although the tonnage of these minerals extracted is low compared to that of limestone and sand and gravel, their higher value per tonne often makes them economically very significant. They are used by several nationally important industries such as brick making, electricity generation and steel making.

4.5 The Minerals Local Plan notes that Derbyshire's other minerals, namely gypsum, ironstone, natural pigments, ganister and peat have been worked in the past. However, in view of their limited occurrence in Derbyshire, and an abundance of deposits elsewhere, they are unlikely to be worked here again in the future. In some cases (e.g. ganister and natural pigments) their use has been largely superseded by other minerals or changes in process technology.

4.6 Derbyshire's production of limestone is highly significant in national terms, providing over 17% of the UK's supply. Other minerals provide a far smaller proportion of national mineral requirements, although they are still important locally and regionally (e.g. sand and gravel for aggregates use in Nottingham/Derby).

Figure 2: Comparison of Minerals Produced in Derbyshire and England in 2007 (000s tonnes)

	Derby City & Derbyshire County	Peak District National Park*	Geographical Derbyshire (i.e. PDNP + DC & DC)	England	DC & DC's % of National Supply (Geographical Derbyshire)
Sand & Gravel	1,157	0	1,157	67,137	1.7% (1.7%)
Sandstone	3	194	197	6,918	0.0% (2.8%)
Limestone	11,610	5,515	17,125	67,378	17.3% (25.4%)
Clay & Shale	606		606	9,269	‡% (6.5%)
Coal	41	0	41	8,729	0.5% (0.5%)
	12,811	**5,709**	**19,126**		

Source: 2007 RAWP Returns, 2007 ONS, 2007 Coal Authority Returns

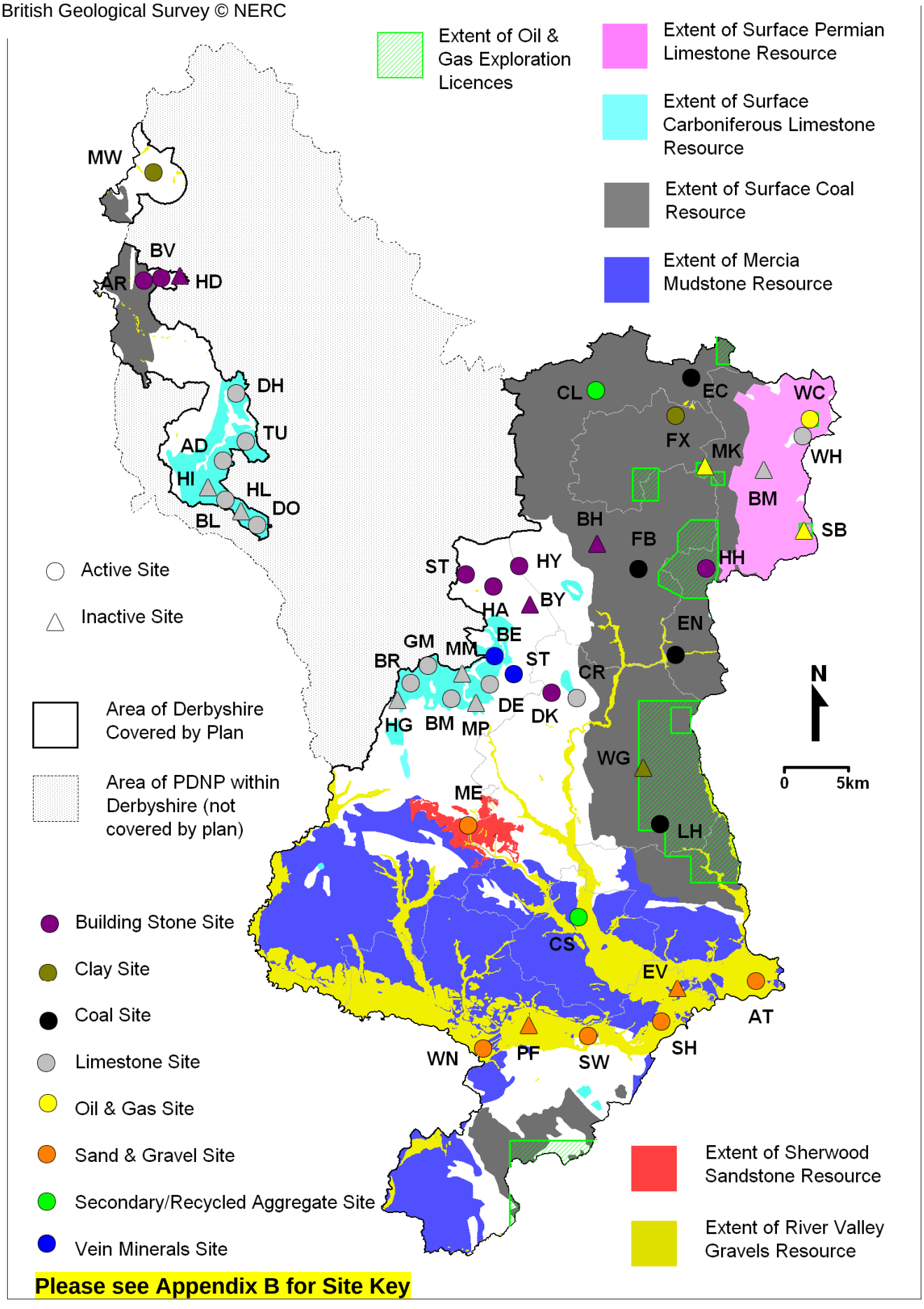
PDNP Estimated (i.e. ONS – Derbyshire RAWP Returns)

*** The Peak District National Park Authority is responsible for mineral planning issues within the National Park. It is included here for completeness (as an important part of Derbyshire) and because some figures used to construct the table do not distinguish between Derby & Derbyshire *Mineral Planning Authorities*` areas and the PDNP area.**

‡ Figures for Derbyshire County and Derby City's share of national supply not available

.

Figure 3: Significant Mineral Resources and Permitted Sites in 2009 (locations indicative)



Please see Appendix B for Site Key

Distribution of mineral resources

4.7 As shown by Figure 3; large areas of Derbyshire have some potential for the extraction of a wide variety of valuable ***mineral resources***.

4.8 Limestone resources, whether of aggregates or industrial quality, are located mainly in the north west of the county (Carboniferous), in the Matlock/Wirksworth area (Carboniferous) and in the north east area of the county, east of Bolsover (Permian). In 2009, there were a total of eleven quarries within Derbyshire producing limestone, ten exploiting the Carboniferous resource and one exploiting Permian resources. Two further quarries produce limestone as a result of vein mineral workings.

4.9 Sand and gravel resources are concentrated along the river valleys, the most important being the Trent Valley to the south of Derby, as well as the adjoining river valleys of the Lower Derwent and Dove. In 2009, there were four active operations spread along the Trent and Derwent Valleys.

4.10 There is a less widespread sand and gravel deposit in the hard rock formation of the Sherwood Sandstones (whilst these are called sandstones they are poorly consolidated and used in the same way as traditional sands and gravels). It is found in a small area around Mercaston, between Ashbourne and Belper. This resource is currently worked by one operation.

4.11 There remain substantial resources of coal in the exposed coalfield, particularly in the east of the county in the North Derbyshire Coalfield, despite the cessation of large scale coal production in the 1990s. In 2009 there were four operational sites; one small underground mine and three surface operations.

4.12 Whilst some surface coal resources remain in South Derbyshire this coalfield is of a limited size, urbanised and largely exhausted by previous surface mining operations.

4.13 Additionally, there is a large potential resource of deep coal in north east Derbyshire contiguous with the surface coal resource shown on the map, and dipping beneath the Permian Limestone to the east. However, development of a new deep mine or the re-opening of a closed deep mine seems unlikely due to very high costs. It is also unlikely that this area would be suitable for coal bed methane extraction due to the low seam methane contents and uncertainty over the permeability of the coals. Additionally, the

area has been worked heavily in the past and operators tend to prefer virgin seams. There may, however, be further opportunities for abandoned mine methane extraction, such as currently occurs at the former Whitwell Colliery, but potential is also low as workings tend to be older and have probably flooded.

4.14 In Derbyshire, brick clay resources are found under the Mercia Mudstone and Carboniferous Clays (mudstones of the Coal Measures Group). Fireclay is found in association with the coal measures. These fireclay resources are not mapped explicitly in Figure 2; the carboniferous clays and fireclays are found together with the coal resource. The Mercia Mudstones are found in a band in the south of the county, as shown on Figure 3 but currently have little or no economic importance.

4.15 In the UK, workable deposits of vein minerals such as fluorspar and barytes are found exclusively in mineralised veins and related deposits in Carboniferous Limestone. Fluorspar occurs in only two areas in the UK – the Northern Pennines and the Southern Pennines. Production in the northern area (Durham) ceased in 1999, leaving the Peak area as the remaining potential source. However, production of these minerals in Derbyshire is limited currently to intermittent supply from two sites. The majority of national supply comes from sites within the Peak District National Park.

4.16 Building stone (mostly sandstone and gritstone, but including some limestone) is produced mainly from small quarries in the central part of Derbyshire, but also from the North-West.

4.17 There is some potential for finding conventional oil and gas deposits in Derbyshire, particularly to the east of Calow, Hardstoft and Ironville on the western margin of the East Midlands oil province. The area to the west has less potential as the main East Midlands reservoir sands, which hold the oil deposit, are absent or only shallow. One site within Derbyshire currently produces methane from an abandoned coal mine.

4.18 There are very limited natural deposits of Silica Sand in Derbyshire and these lie near Brassington. They have been worked to some extent in the past with little likelihood of being worked in the future.

4.19 In terms of recycled and secondary aggregates, there were (in 2009) two active sites; Chaddesden Sidings and Callywhite Lane, Dronfield.

Permitted Mineral reserves[†]

4.20 At 31st December 2008, current ***mineral reserves*** (i.e. that part of the overall mineral resource that has planning permission to be worked) of limestone for aggregate uses totalled some 828 million tonnes, enough to last for 95 years at Derbyshire's current level of annual apportionment. Reserves of industrial limestone are estimated to be around 360 million tonnes, although these serve a wide variety of different markets.

4.21 The cement works at Tunstead Quarry has sufficient reserves of limestone to last beyond the 25 years recommended by the Government.

4.22 Reserves of sand and gravel are significantly lower, standing at some 10.5 million tonnes at the end of 2008. Based on Derbyshire's current level of apportionment, these reserves will only last for about 8 years.

4.23 Reserves of coal were, at the end of 2008 about 1.5 million tonnes, distributed between 3 sites (two operational and one not in operation). Since the end of 2008, a further 160,000 tonnes of coal has been granted planning permission. The level of future demand for these minerals is not explicitly defined.

4.24 Current reserves of sandstone (at operational sites) stand at around 500,000 tonnes. In 2008, production from these sites was approximately 2,800 tonnes.

4.25 Although there was no production of brick clay in 2008, permission was granted in 2009 for the extraction of 600,000 tonnes of brick clay from Foxlow Tip, Staveley. There are two further clay and shale extraction sites in Derbyshire and whilst there has been no extraction since 2007 at either, there is the possibility of some production in 2009.

4.26 There is currently one site in Derbyshire producing gas (abandoned mine methane) at the former Whitwell Colliery.

[†] Whereas figures for the preceding chapter are for 2009, figures in this section are for the situation as of the 31st December 2008 as this was the most up to date information available at the time of publication.

Usage & Markets

Limestone

4.27 After extraction, limestone is crushed mechanically to varying sizes and its end use depends either on its physical properties (used as aggregate) or its chemical properties (industrial limestone). A single bed of limestone can provide rock for both purposes and many of Derbyshire's quarries produce both industrial limestone and aggregate limestone.

4.28 Aggregate Limestone is important mainly for its physical properties. It is used mainly as fill material, roadstone and in the manufacture of concrete. Around 75% of Derbyshire's limestone aggregates production is sold outside the county. The largest share of these exports is to the North West Region (35% of total production). 15% of total production is sold to other counties within the East Midlands and 25% to other regions, notably Yorkshire & Humberside, the West Midlands and the East of England regions.

4.29 Industrial Limestone is used for a great variety of generally high value industrial processes (such as agricultural and steel industries, sugar refining and glass making and as filler in products such as paints, plastics & rubbers). Markets are national and, in some cases, international. A more local use is for cement manufacture and in this case, cement works tend to be located very close to quarrying operations. The cement works at Tunstead uses large quantities of limestone from the quarry in which it is situated.

Sand and Gravel

4.30 This is used primarily in the manufacture of ready mixed concrete, pre cast concrete products and as a bulk filling material. In Derbyshire, a high percentage of sand and gravel is used in the manufacture of concrete. Most of the active pits in Derbyshire have ready mixed concrete plants on site, producing concrete for the pre-cast concrete plants within the county. These serve a national and regional market for products such as blocks, floors, pipes, kerbs and street furniture. Sand is used mainly in the production of mortars and asphalt, or as building sand.

4.31 Most sand and gravel originating in Derbyshire is used within 10 – 15 miles of the pits, mainly because of the high cost of transporting the material, but also because of competition from other sources of aggregate in the area. In 2005, 21% of total sand and gravel output from Derbyshire was used within the county, with 73% being exported to

elsewhere in the East Midlands and most of the remaining 6% used within the Yorkshire and Humber and West Midlands regions.

Coal

4.32 Derbyshire coal is of a quality suitable for use by the electricity industry in power generation. The nearest coal fired power station is at Ratcliffe-on-Soar in Nottinghamshire. Over the longer term there is likely to be increasing pressure on coal resources as additional technologies to extract coal become economic, such as underground gasification. New uses for coal, such as substituting for chemical uses where oil and/or gas are currently used, may also become economic.

Clay

4.33 Brick clay is the term used to describe clay, shale and mudstone used in the manufacture of structural clay products. The largest use is for facing and engineering bricks, followed by pavers, clay tiles and clay pipes. Clay is a high volume, low value commodity, and as such is expensive to transport long distances. Manufacturing facilities for clay products are often located close to the source of clay. Fireclays are used in the manufacture of refractory products, i.e. furnace linings, and are also an important raw material for the manufacture of engineering bricks. Cream and buff coloured bricks are manufactured from fireclay as it has a low iron content.

Vein Minerals

4.34 There are two vein minerals which are significant in Derbyshire; Fluorspar and Barytes. Fluorspar was used as a flux in the manufacture of steel. The recent decline in the British steel industry and new technology has negated this. All Fluorspar ore mined in Britain is now processed to produce Hydrofluoric acid, which is used in a variety of industrial processes. Barytes is produced in small amounts in Derbyshire. Due to its relatively high density, it is used mainly as a weighting agent in drilling mud in the offshore oil and gas industries. It is also used as a filler in paper, textile, rubber, plastics, oilcloth and linoleum manufacturing and as a pigment in paint.

Oil & Gas

4.35 Both are internationally traded commodities with a wide variety of uses. Gas can be used either close to its point of extraction or can be transported by road or fed into the national grid.

Sandstone (for building stone):

4.36 The market for traditional building stone is small and is mainly concerned with the restoration of historic buildings or with the repair/extension of existing properties or new build properties in areas of high environmental value. The specific properties and value of the stone mean that it is often economically viable to transport it substantial distances.

Recycled & Secondary Aggregates:

4.37 ***Recycled Aggregates*** & ***Secondary Aggregates*** materials can be used to provide bulk fill for construction projects, in concrete manufacture, road surfacing and for the manufacture of light weight aggregate blocks. Due to their low value, the market will tend to be for local construction projects.

Contribution to the local economy

4.38 In 2007, approximately 1,700 people were employed by the minerals industry in Derbyshire (incl. the Peak District National Park). We estimate that up to 50 million pounds is paid annually in salaries to employees in the minerals industries in Derbyshire, with many of these jobs located in rural areas where employment can be scarce.

4.39 The minerals industry in Derbyshire also supports a network of production and processing facilities, such as the cement works at Tunstead and the brick works at Chesterfield. In turn, these industries supply the raw materials for other essential industries, such as construction.

Transportation

4.40 Most of the minerals produced in Derbyshire are transported by road. Generally, rail links are only viable at high volume, long life quarries where the significant capital costs can be recovered, although smaller operations can sometimes access the rail network when opportunities arise. In 2007, there were three active rail facilities in Derbyshire, at Tunstead Quarry, Dowlow Quarry and Doveholes Quarry and three inactive rail facilities at Hillhead Quarry, Whitwell Quarry and Hindlow Quarry (which is however used for imports from Tunstead).

4.41 Additionally coal has been transported from the Oxcroft Coal Disposal Point near Bolsover by rail and there is a current planning application pending for the retention of this use.

Reclamation

4.42 Generally, mineral extraction by its nature is a temporary use of land although one which in some cases may last for many years. Once extraction has ceased the site must be restored to its former use or to another suitable and beneficial new use, such as agricultural, wildlife or leisure uses. The type of restoration possible will be affected by site specific issues and the type of quarry that existed, for example it would not be possible for the large limestone quarries in the Buxton area to be restored to their original ground levels, although they can often be reclaimed for agricultural use within a changed landscape setting.

4.43 In Derbyshire many of the currently operational quarries have conditions requiring their restoration to agriculture and/or amenity uses. Some quarries currently have no agreed restoration scheme, an issue on which we will need to work positively with the mineral operators concerned.

4.44 Although in the past, most of the permitted sand and gravel workings in Derbyshire have conditions requiring their restoration to agriculture, restoration to water uses is becoming more common as inert fill material becomes increasingly scarce. Where sites are close to airports, this has to be balanced against the need for restoration schemes to take into account and mitigate the risk of birdstrike.

Legacy of mining

4.45 The extensive history of mining and quarrying within Derbyshire has left an environmental legacy, but one which should not be overstated. Whilst there are many former quarries in Derbyshire, most are small and having blended into the landscape over time, do not have a significant detrimental impact on the local area.

4.46 Although underground mining is currently no longer so environmentally significant, potential public safety and stability problems can still be triggered and uncovered by development activities. Such problems can include the collapse of mine entries and shallow mine workings, emissions from mine gases and spontaneous combustion and the discharge of mine water from abandoned coal mines.

4.47 Within the Derbyshire area, there are approximately 9,800 recorded mine workings and large areas of shallow mine workings. To date, around 185 hazards related to coal mining related have been recorded. To address this issue; the Coal Authority along with

North East Derbyshire, Chesterfield & Bolsover District Councils are working on a map to help identify areas where issues (e.g. ground instability) resulting from the legacy of coal mining in Derbyshire need to be considered when determining planning applications.

Key points from the Portrait of Minerals in Derbyshire

- **Derbyshire has a nationally significant role to play in the provision of aggregate minerals, including crushed rock and sand & gravel and limestone for industrial uses.**

- **There are several other minerals worked in Derbyshire, including sand and gravel, coal, gas, vein minerals, building stone & brick clay, which could be subject to increases in future demand.**

- **Mineral extraction can have a variety of impacts on its surroundings, from increased noise and traffic, to a potential wide impact on the landscape, although these can be reduced by careful site design and management.**

- **Road transport is generally good in the east and south of Derbyshire, around the M1, A38 and A50, but there are significant road transport constraints in other hillier areas in the west and North West.**

- **The impact from mineral workings continues once extraction has ended. We need to consider after uses and how the final landform will fit in with its wider setting, especially given the scale and long term nature of mineral activity in Derbyshire.**

PART TWO: VISION, OBJECTIVES, ISSUES & OPTIONS

In the light of the information in part one, we are now developing a "spatial vision", which is intended to guide the overall strategy for minerals planning in Derbyshire in the period to 2030. In order to ensure that we address each aspect of the vision adequately, we have translated it into a series of objectives. The way we achieve these objectives will be through policies in the final Minerals DPD. In some cases, achieving our objectives will be challenging, and there are potentially some very difficult choices to be made. In Chapter 6, we have laid out some of the major issues which we think need addressing to meet our objectives and some of the potential solutions to these problems.

For example, paragraph 7 of the vision states that, by 2030, *there will have been a reduction in the excessive landbank of crushed rock in Derbyshire.* This part of the vision stems from national guidance which states that excessive landbanks (which in Derbyshire mainly result from extensive ministerial permissions granted in the 1950s) should be reduced. In order to ensure this aspect of the vision is properly considered in the plan making process, we have produced an objective for the plan (objective G), to reduce permitted reserves of crushed rock. There are, however, some significant issues that need to be addressed before we can meet this objective.

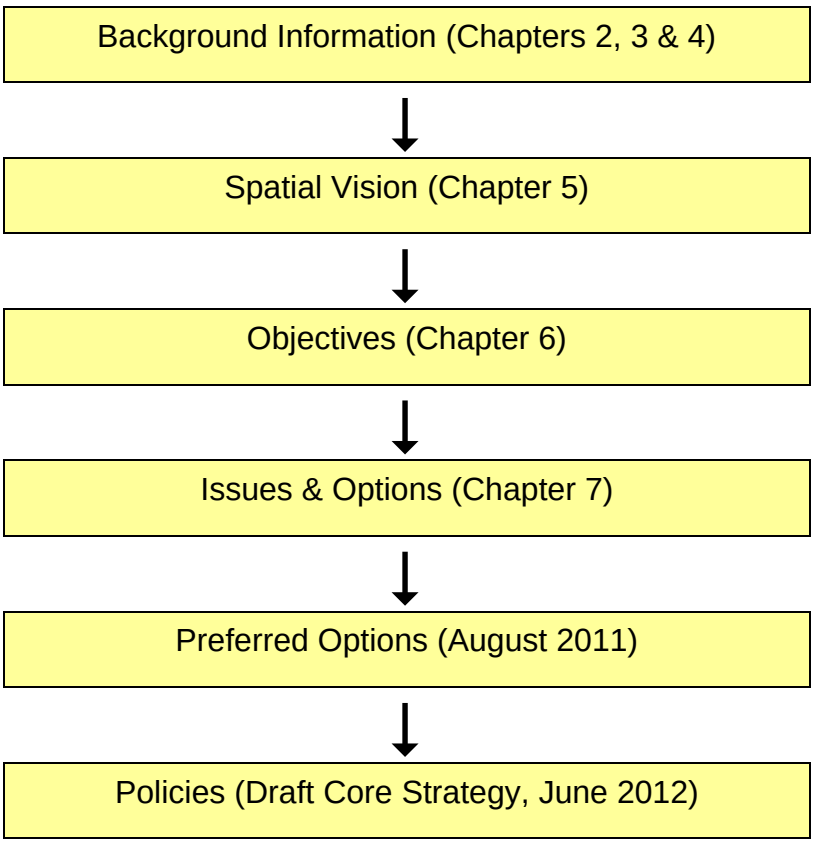


Figure 5: The relationship between the chapters of this document and the draft Core Strategy

5 What Could a Vision For Minerals Development in Derbyshire Look Like?

5.1 We are developing a spatial vision for how we expect the city and county to look in terms of mineral development by 2030. Stakeholder input has already been helpful to this process. These are the elements that we are suggesting so that, by 2030:

1. The plan will have helped to achieve the best possible balance between maintaining the economic and other benefits to be gained from mineral extraction in Derby and Derbyshire and its impact on the environment and communities.

2. We will have worked in partnership with industry, communities and neighbouring authorities to ensure that the Derby and Derbyshire of 2030 has a pattern of sensitively located, worked and restored mineral extraction sites.

3. The working of these sites will have enabled Derby and Derbyshire to meet its contribution to the local, regional and national need for minerals and assisted in achieving a progressive reduction of minerals won in the Peak District National Park.

4. Development will have also helped the achievement of sustainable economic development and regeneration of the area, including through the delivery of materials for use in industry, the creation of jobs and training and addressing the legacies of the historic economy, especially in areas of identified deprivation.

5. The use of primary resources will have been minimised through efficient working practices, prudent and efficient use of minerals and through the maximum use of recycled and secondary materials

6. Derbyshire's valuable and economically viable mineral resources will have been identified and safeguarded for use by future generations.

7. There will have been a reduction in the excessive landbank of permitted reserves of crushed rock in Derbyshire.

8. The adverse social and environmental effects of mineral extraction on local communities will have been minimised to an acceptable level, unavoidable social effects mitigated and opportunities for community benefits maximised.

9. The impacts of climate change and the potential for flooding, will have been taken into account in decision making, unavoidable effects minimised and mitigated, and adaptations made for the effects of climate change in mineral developments.

10. Minerals will be transported more sustainably, the adverse environmental effects of their transportation will have been be minimised, including the effects of moving minerals long distances, the effects on communities, and opportunities will have been taken to achieve a modal shift in their transportation.

11. Potential for effective and high standards of restoration and productive after-use will have been integral to site selection and to the consideration of proposals for mineral extraction, ensuring that proposals have regard to existing landscape character and the need to protect wildlife and enhance biodiversity. Restoration of mineral workings will have made optimum use of scarce ***inert fill*** resources and will have led to an increase in the provision of outdoor recreation or other facilities in accordance with other local strategies.

12. Restoration strategies will also have been developed for particular areas subject to long term cumulative impact of quarrying, such as for the Trent valley and the A515 corridor near Buxton, and will have provided a longer term, more coherent approach to the sustainable development and restoration of sites.

Do you agree that this covers all the elements that a vision for mineral extraction in Derbyshire should cover?

If not, please specify what you think should be added or removed.

5.2 From this vision, we will develop objectives and policies to help deliver the overall vision, as set out in the next chapter.

6 Plan Objectives

The Objectives

6.1 The Core Strategy needs to set out strategic objectives for minerals development which will deliver the vision and be translated into a spatial strategy and core policies. The draft objectives of the Core Strategy are as follows:

A. To make sufficient provision for all mineral resources (in particular the agreed sub-regional apportionment requirements for aggregates provision) to meet national, regional and local requirements. (*Vision 3*)

B. To assist in the delivery of sustainable economic development and regeneration.(*Vision 1 & 4*)

C. To help achieve a progressive reduction in mineral extraction from the Peak District National Park. *(Vision 3)*

D. To protect the quality of the natural and built environment from the impact of minerals development, including the Peak District National Park and the Derwent Valley Mills World Heritage Site. *(Vision 1 & 2)*

E. To make the most sustainable use of mineral resources, including by maximising the use of recycled and secondary materials in meeting recognised national and regional requirements and by ensuring the most efficient use of high quality minerals and the minimisation of waste materials. *(Vision 5)*

F. To safeguard a sufficient supply of mineral resources from unnecessary long term sterilisation. *(Vision 6)*

G. To reduce the landbank of crushed rock in Derbyshire. *(Vision 7)*

H. To protect local communities from the impact of minerals development. (*Vision 8)*

I. To help mitigate the impacts of climate change, including increased flood risk, by minimising energy use and maximising the use of renewable energy and adapting appropriately to the impacts of climate change. *(Vision 9)*

J. To make the best use of existing infrastructure and ensure that new infrastructure provision encourages opportunities for sustainable means of transporting minerals. *(Vision 10)*

K. To ensure that after extraction, land is reclaimed at the earliest opportunity, and that high quality restoration and aftercare takes place which maximises community and environmental benefits and makes optimum use of inert fill material. *(Vision 2, 11,12)*

6.2 These objectives will be met through the provision of detailed policies to guide, assess and control mineral development.

Do you agree that this covers all the elements that the objectives for mineral extraction in Derbyshire should cover?

If not, please specify what you think should be added or removed.

7 Issues and Options

7.1 Achieving the objectives that we have set out in Chapter 5 will be very challenging. This chapter is intended to set out the major issues which we have to resolve and to seek people's views on the preferred way forward. Stakeholder input has been important in helping to identify and develop these issues.

7.2 Some of the objectives have several different issues that need to be addressed, whereas others have no issues. In the latter case, this is not because the achievement of the objective will be easy, but because the policy approach that we should take is already clear. This applies to objectives B, D, H, I and J.

OBJECTIVE A: Ensuring Sufficient Provision of Minerals

7.3 We have identified the following as the main issues that we need to address before we can propose suitable policies to address Objective A. Each of these individual issues are discussed in detail below.

- How should we calculate the provision for aggregates in Derbyshire beyond 2020, because we are faced with two different methods?
- How should we address the need for new sand and gravel provision in order to meet the agreed and future apportionment?
- How do we maintain an adequate supply of industrial limestone?
- How do we manage the potential increase in demand for the extraction of coal?
- How do we address the need for building stone?
- How do we manage the demand for the extraction of clay?
- How do we manage the demand for the extraction of vein minerals?
- How do we manage the demand for the extraction of oil & gas developments?

7.4 One important aspect to note is that whilst we need to consider the provision of all minerals, there is a national framework only for the provision of aggregates. This influences the extent to which we can be certain over our estimates of future demand and consequently our ability to make future provision in the plan. This issue is examined more closely in each of the mineral evidence base papers.

How should we calculate the Provision for Aggregates beyond 2020?

7.5 Government Policy in MPS1 requires that we make appropriate levels of provision for ***primary aggregates*** (crushed rock and sand and gravel) for the period of the Strategy (up to 2030); however, the apportionments set out in the National and Regional Guidelines are agreed only for the period to 2020. This leaves a 10 year gap, for which we will have to show an "apportionment" figure. This will enable us to provide people with an idea of the scale of site provision in this latter part of the plan period, even if this means identifying only areas of search rather than specific sites for the period 2020-2030 and beyond. Projecting forward agreed rates of annual provision would be one option and using an average of actual past rates of production would be another.

7.6 We have agreed, currently, that the majority of the reduction in provision of crushed rock aggregates from the Peak Park up to 2020 (see Issue 12) should be provided for in Derbyshire. Beyond 2020, it is anticipated that other authorities in this region and adjoining regions will take an appropriate proportion of this displaced provision based on geographical markets. As a result, Derbyshire's provision for crushed rock aggregate could, potentially, be reduced beyond 2020, compared to the agreed figure for 2005-2020.

7.7 It should also be recognised that revised apportionments for aggregates may be made available during the timescale of the Strategy and these may provide figures to 2030. There is the opportunity for elements of the Core Strategy to be reviewed once it is in place and the publication of revised apportionments would be a catalyst for such a partial review. If this is the case, these agreed apportionment figures would replace the estimated figures.

7.8 More detailed information on the specific apportionments for each type of aggregate is provided in the evidence papers relating to sand & gravel and aggregate crushed rock.

Issue 1: Calculating the Provision of Aggregates beyond 2020

a) What would be the best way of calculating the necessary provision we will need to make for aggregates in the period after 2020? Is it

Option 1: Make an estimate of provision beyond 2020 based on a straight line projection of the current agreed apportionments (i.e. the annual apportionments for crushed rock and sand & gravel remain the same for the years from 2020-2030 as they are from 2005-2020.)
Option 2: Use an average figure of recent annual production rates to calculate annual apportionment figures from 2020 to 2030
An alternative Option: Please specify

b) Do you agree (for both Options 1 and 2) that we should also allow for a reduced proportion of Peak Park's displaced provision of crushed rock on the assumption that, after 2020, other authorities will take an element of this displaced provision?

c) Please explain how you came to your decision for (b), and if you disagreed, please suggest an alternative approach

How should we address the Need for new Sand and Gravel Provision?

7.9 There are currently estimated permitted reserves of 10.6 million tonnes of sand & gravel in Derbyshire (the landbank). There is sufficient permitted material, therefore, to last just over another seven years, at current rates of production. (There are also a number of sites that are allocated for extraction in the Minerals Local Plan for which planning applications are currently under consideration, and these sites could potentially provide material for an additional two to three years). This means that we will have to find sites for the extraction of sand & gravel in order to maintain the landbank at the required level and to ensure continuity of production throughout the period of the Core Strategy.

Future Apportionment

7.10 The East Midlands Aggregates Working Party has apportioned the regional sand and gravel supply figure between the mineral planning authorities. This requires Derbyshire to provide an average of about 1.49 million tonnes of sand and gravel each year from 2005 to 2020. This amounts to 23.84 million tonnes of sand and gravel in this period (i.e. 1.49 x 16). Actual sales of sand and gravel between 2005 and 2008 total 4.86 million tonnes. Reserves which already have planning permission amount to 10.64 million tonnes. This comes to 15.5 million tonnes and this figure should be subtracted from 23.84. This means that we will have to identify sites to provide a further 8.3 million tonnes to ensure that Derbyshire provides its share of the regional apportionment of sand and gravel to 2020.

7.11 If the agreed annual apportionment is rolled forward on a straight line basis to 2030 (See Issue 1), this would amount to an additional 14.9 million tonnes for the period 2021-2030. Because figures have not been agreed for this period, there is less certainty, so our preferred approach may be to define areas of search for this 10 year period rather than specific sites.

Site Allocations

7.12 Government policy is that strategic sites may be identified in core strategies i.e. sites which will be key to the delivery of the strategy. It will be a key objective of the plan to make an appropriate level of provision for sand and gravel supply as part of a national and regional managed aggregates supply system. It will be appropriate, therefore, for sites which make this provision to be regarded as strategic sites.

7.13 We built up a large evidence base on aggregates through work on the discontinued Sites DPD. Much of this work is still relevant and, where appropriate, will be drawn on in identifying strategic allocations in the plan, especially in the earlier part of the period. It will be updated to ensure that the evidence is still valid and other sites can be put forward for assessment, along with those that were considered previously.

New Sites or Extensions to Existing Sites?

7.14 Government policy advises that there are benefits of extensions to existing sites rather than new sites. These benefits arise mainly from reduced environmental disturbance, especially where access and mitigation measures are already in place, but the disadvantage is the potential cumulative impact that continued extraction could have on an area if successive extensions are permitted.

7.15 All sand and gravel workings in Derbyshire are currently located in the Trent and Derwent Valleys in an area from Attenborough and Willington. There is more potential in this area for new permissions to take the form of extensions to existing sites rather than wholly new sites. Resources are, however, gradually becoming depleted in this area and remaining resources are often in areas that are considered to be increasingly sensitive in environmental and social terms.

7.16 There will be sufficient resources at these existing operations in potentially acceptable locations to sustain agreed levels of extraction to 2020 but, towards the end of the strategy period (2020 - 2030), it is likely that sites with extensions at a number of these existing working areas would be in increasingly sensitive locations, in both social and environmental terms. As a result, the benefits of this approach of allowing extensions to existing sites may be increasingly outweighed by the disadvantages of cumulative impact. It is likely, therefore, that progressive expansion of existing operations may become a less satisfactory option as the Core Strategy progresses.

7.17 A major issue that will have to be considered, therefore, will be whether, after 2020, we permit further extensions to existing sites or whether we begin a search for wholly new sites in other areas of the river valleys. The area of the Dove Valley around Foston and Sudbury is the main area with potential sand & gravel working, although much of this has yet to be explored. In this respect, the ongoing cumulative impact on the environment and on communities of allowing further extensions to existing sites will have to be

weighed against the social and environmental impact of allowing large scale extraction from new sites in a new area.

7.18 There is some clarity over the provision required to 2020, so it may be preferable to identify specific sites to that date, but from 2020 to 2030, when there is less certainty over provision, identifying areas of search may be a better approach.

Issue 2: Identification of Sites for Sand & Gravel

a) Taking all these considerations into account, one approach to meeting the necessary provision targets would be:

For the period up to 2020 - allocate specific extensions to existing sites rather than allocating new sites

For the period 2020-2030 - allocate broader Areas of Search

Do you agree with this approach?

b) Please explain why you came to that decision, if you disagreed, please suggest an alternative approach that we could take

How do we maintain an adequate supply of Industrial Limestone?

7.19 On a simple mathematical calculation, Derbyshire's overall permitted reserves of industrial limestone would appear sufficient to last for many years beyond the period of the plan. This would suggest that there should not be any need for further permissions to be granted during the plan period.

7.20 However, the term industrial limestone encompasses a range of different chemical compositions of stone, some of which are rare and supply nationally important industries which may not be able to secure an adequate alternative should the supplying quarry exhaust its permitted reserves and be unable to secure an extension.

7.21 It is likely that the most appropriate way of dealing with this issue would be to include a policy within the Core Strategy similar to that which already exists in the Minerals Local Plan, and which states that new permissions for industrial limestone will only be granted in exceptional circumstances, where there is a proven need for material of a particular specification which would otherwise not be met.

Issue 3: Criteria Based Policy for Industrial Limestone

a) Do you agree that a criteria based policy is the best way of dealing with the issues outlined above?

b) Please explain how you came to that decision. If you disagreed, please suggest an alternative approach that we could take

7.22 There are some operations which have very specialist markets, such as at Longcliffe, Grange Mill and Whitwell. Whitwell Quarry, in particular, is one of only two sources in the UK of refractory stone and high iron content limestone for the steel industry and as such is considered to be of national importance. The quality of refractory stone produced is very specialised indeed with significant exports to a number of countries.

7.23 Permitted reserves at Whitwell Quarry are sufficient to last until 2025 so in order for production to continue for the final part of the strategy period (to 2030), there will be a need to indicate likely areas for extraction. There may be the potential for extraction to move south of Creswell Crags into Nottinghamshire, so we will have to work closely with Nottinghamshire County Council, as well as the operator, to ensure that all options are explored for the area in terms of specific site provision.

7.24 A general criteria based policy, such as that described above, can be written so as to deal satisfactorily with new proposals that come forward for industrial limestone, generally. However, it is important that where we are aware of difficult decisions and we have sufficient evidence to address them (such as may be the case at Whitwell) we seek to do so in the core strategy rather than putting them off to a later date. This approach provides a greater degree of certainty for operators and local communities and helps to ensure that our proposed strategy is deliverable.

How do we manage the potential increase in demand for coal?

7.25 National guidance for the extraction of coal and the disposal of colliery waste as set out in MPG3, (published in March 1999) is to ensure that such development only takes place when the best balance has been achieved between community, social, environmental and economic interests, consistent with the principles of sustainable development.

7.26 As set out in MPG3, in applying the principles of sustainable development to coal extraction, and to colliery spoil disposal, the Government believes there should normally be a presumption against development unless the proposal would meet a series of tests.

National Energy Policy

7.27 The draft National Policy Statements for Energy, published in 2009 build on the 2007 White Paper and together set out the Government's international and domestic energy strategy to respond to the changing circumstances in global energy markets and to address the long term energy challenges of security of supply, whilst recognising and responding to the damaging implications of climate change. Within this framework, it is the Government's policy to maximise the economic recovery of all fossil fuels, including coal.

7.28 The Government envisages that future development of coal should be based on collaboration between stakeholders in the coal and power industries and government to secure the long term future of coal fired power generation, to optimise the use of national coal reserves where recovery is economic, and to stimulate investment in clean coal technologies and carbon capture and storage. Considerable investment has already been made in enabling existing coal-fired power stations to comply with new EU emissions legislation.

Sterilisation of Surface Coal Resources

7.29 As shown by comparing figures 1 and 4, the main areas of coal resources in Derbyshire coincide with the heavily urbanised areas of the east. As a result, potential for surface coal extraction is most likely to arise in advance of other development, either during reclamation of a brownfield site and/or remediation of a former colliery working or tip sites or as part of greenfield development. MPG3 advises that in principle, it is desirable to secure coal extraction prior to new development above coal resources, provided that it can be done within a reasonable timescale and in an environmentally acceptable way.

7.30 Additionally, at some sites it may be necessary to remove shallow coal deposits for land stability reasons and where previous shallow workings could seriously affect a planned development. This issue is dealt with in more detail in the safeguarding chapter.

Identifying Future Working Areas

7.31 MPG3 advises that Mineral Local Plans should indicate any areas where coal extraction and the disposal of colliery waste may be acceptable in principle and similarly where such development is unlikely to be acceptable or where coal resources are to be safeguarded for future working.

7.32 MPG3 acknowledges that the extent to which it will be possible to identify particular areas for development and the level of detail that can be shown in relation to possible sites, will depend upon local circumstances and the level of knowledge about the resource. It, therefore, suggests three alternative approaches:

- Identify broad areas of search and/or
- The extent of the shallow coalfield area and the constraints within that area
- A combination of the two

7.33 As far as coal extraction is concerned within Derbyshire, the Mineral Planning Authority does not have the technical or commercial information on the quality and extent of deposits necessary to identify with any confidence those sites which might come forward during the plan period. Moreover, MPG3 states it is the job of the coal industry rather than the planning system to determine the level of coal production they wish to aim for.

7.34 The most appropriate manner in which to deal with this issue will probably be for the Minerals Core Strategy to indicate the general extent of the shallow coal field and define within that area the main areas of environmental constraints. Beyond this, a criteria based policy such as currently exists in the Minerals Local Plan will most likely be the most appropriate route in which to assess individual proposals.

7.35 Although we are not currently in a position to suggest possible sites for surface coal extraction in the Core Strategy, if sites do come forward it may be appropriate to consider whether to include them as allocations in the final document.

Issue 4: Identifying Future Working Areas for Coal Extraction

a) Do you agree that a criteria based policy is the best way of dealing with the issues outlined above?

b) Please explain why you came to your decision for (a). If you disagreed, please suggest an alternative approach that we could take.

c) What are the environmental constraints to the identification of future working areas that should be defined?

Identifying Environmental Constraints

7.36 MPG3 also advises that areas where working is unlikely to be acceptable should be indicated. In the current Minerals Local Plan these areas were defined as Opencast Constraint Areas. Experience gained dealing with planning applications since the publication of the Minerals Local Plan has shown Opencast Constraint Areas to be an effective means of protecting areas of acknowledged environmental importance. However, there may be a significant disadvantage for areas outside the constraint area.

7.37 Evidence from recent planning decisions may indicate that, where areas excluded from, but adjoin, an opencast constraint area, it can give the impression that the general presumption against development is somehow weaker in those areas and the threshold of environmental acceptability is lower. Therefore, we will need to decide whether Opencast Constraint Areas should be designated in the Minerals Core Strategy.

Issue 5: Surface Mining Constraint Areas

a) Should we designate surface mining constraint areas?

b) If so, should we follow the approach taken in the Minerals Local Plan of identifying areas with a sufficient concentration of conservation designations to justify special protection?

c) What designations should they cover?

d) Or should we follow a different approach?

How do we Address the Need for Building Stone?

7.38 In Derbyshire, the main source of building stone is the sandstone/gritstone of Carboniferous origin. Limestone is also produced in small amounts for this purpose as a by-product at some of the major limestone quarries, such as Tunstead Quarry.

7.39 There is a national market for building stone from Derbyshire. It is a small but profitable industry and is mainly concerned with the repair and restoration of historic buildings or with the repair/extension of existing properties or new build properties and structures in areas of high environmental value, such as conservation areas where it is important to preserve and enhance local distinctiveness and local building character.

7.40 Building and roofing stone resources often lie in areas of high quality landscape; it is the underlying geology that gives rise to the distinctive landscape. The need to protect the landscape will, therefore, be a significant constraint on any proposals to work this resource but this has to be balanced against the need to use this stone to protect and enhance the built environment, which may be just as integral to the unique character of Derbyshire. Operations to extract stone for building material tend to be relatively small scale with modest, intermittent production, enabling their overall impact to be minimised.

Proper and Efficient Use of Building Stone

7.41 Stone of a sufficiently good quality for building and roofing is an important and scarce resource and it will be important, therefore, to ensure that new permissions for the extraction of building stone in Derbyshire limit the amount of stone that is not used for this purpose. Inevitably, there is likely to be a proportion of waste material, not of sufficient quality to be used as building stone that will be used as aggregate, but this should be kept to a minimum and building stone should be the principal product.

Issue 6: Proper and Efficient use of Building Stone

a) Do you agree that we should include a policy which stipulates that building stone from new workings should be the principal product?

b) Please explain why you came to that decision. If you disagreed, please suggest an alternative approach

The Need for Building Stone in Derbyshire

7.42 Unlike for aggregates, it is almost impossible to predict needs for building and roofing stone. There is not a national or regional framework in place to predict demand and needs and to apportion quantities to each MPA. This has to be assessed, therefore, as and when planning applications are submitted for the extraction of building stone.

Identifying Sites

7.43 English Heritage is currently undertaking a national project to identify specific quarries which can supply the building stone needs of specific buildings or settlements. We would use this work and it could enable us to identify either specific quarries for building stone in the Core Strategy or to inform a more general policy approach.

Safeguarding Resources of Building Stone

7.44 We will be defining areas where reserves of building stone of economic and conservation value will be safeguarded from non mineral development to ensure they are available for future generations, if required.

Issue 7: Meeting the Need for Building Stone

a) What approach do you think we should take for meeting the need for building stone?

Option 1: Identify specific quarries or extensions to existing quarries to provide sources of building and roofing stone for certain buildings or settlements.
Option 2: Devise a general policy, which allows for the extraction of building stone at sites where particular criteria are met.
A different Option (Please specify)

b) Please explain why you came to that decision. If you chose 'a different option', please explain what that would be.

How do we Manage Demand for the Extraction of Clay?

7.45 There are no national, regional or county demand figures for brick clay or fireclay production. The industry is market-led and closely related to the needs of consumers and to trends in the construction and ceramics industries, although it is also used in the construction of cells for landfill waste disposal facilities. During buoyant economic periods, demand for clay increases for the production of bricks, tiles, terracotta pipes, refractory products, etc. Periods of decline can lead to mothballing or shutting down of extraction and processing facilities.

7.46 In this context, it is important to maintain essential supplies to consumers when they are needed, while seeking to encourage the rapid working and reclamation of sites to minimise environmental impact, and resisting proposals in which the stocking of clays would lead to delays in that reclamation. It is often preferable, therefore, for clay to be stocked at the site of the industrial process, rather than the extraction site.

7.47 The existing policy in the Minerals Local Plan (Policy MP32: Clay) sets out criteria for the acceptability of new proposals, including the need for the mineral to be worked, in relation to the needs of existing clay products companies or waste disposal facilities. Whether the development is designed to secure rapid reclamation which, in particular, is not delayed by arrangements to stockpiling the clay, is a particularly important criterion.

Issue 8: Managing how we make provision for Clay

a) Do you agree that we should include a policy for the development of clay working which sets out criteria similar to those in the existing Minerals Local Plan policy?

b) Please explain why you came to that decision, and if you chose ‘no’ please suggest an alternative approach that we could take

How do we manage the Demand for Vein Minerals?

7.48 There is a world market for fluorspar and barytes that is difficult to plan for as demand fluctuates widely. Cavendish Mill near Stoney Middleton in the Peak District National Park is the only fluorspar ore processing facility of its kind in the UK and any threat to its viability could have significant effects on the economy. Vein minerals occur in the part of the plan area of higher landscape quality close to the national Park, but are not currently worked here. Finding alternative sources of Fluorspar is difficult. Sourcing fluorspar worldwide has its problems in terms of finding the right type of ore and the costs of transport, making it economically feasible.

7.49 In terms of supply, the variable nature of deposits makes their assessment difficult. Because vein minerals occur in association with limestone in Derbyshire, its extraction can involve the necessary extraction of limestone in order to gain access to it. The assessment of new proposals for vein mineral will need to take account the need for the mineral but also have regard to the effect of the proposal on the already excessive over provision for limestone aggregates. Given the national need for this important mineral, there may be a case for allowing proposals for its extraction within the plan area. This must be balanced against any impact of working it in such sensitive locations on the environment or communities,

7.50 The existing policy in the Minerals Local Plan (Policy MP33: Vein Minerals) requires decision-makers to take into account the need for the mineral to be worked and the need to minimise both the scale and duration of the working. In seeking to minimise environmental impact, the least damaging methods of working and arrangements for waste disposal need to be employed and, where underground methods are used, the danger of landslips or subsidence must be taken into account.

Issue 9: Managing how we make provision for Vein Minerals

a) Do you agree that we should include a policy for the development of vein working which sets out criteria similar to those in the existing Minerals Local Plan policy (MP33).

b) Please explain why you came to that decision, and if you chose ‘no’ please suggest an alternative approach that we could take

How do we Manage Demand for Oil & Gas Developments?

7.51 Government policy on planning control of land based exploration, appraisal, development and extraction of oil and gas resources in England is set out in Annex 4 of MPS1, published in 2006. As the above ground development is often small scale and temporary, the environmental impact of oil and gas development is (compared to say an aggregates quarry) relatively limited.

Conventional Oil & Gas

7.52 Government advice seeks to realise the maximum potential of the UK's conventional oil and gas resource in an environmentally acceptable manner. However, as no production targets are set and as we are not able to define resource areas for hydrocarbons (as potential prospects can only be identified after extensive exploration activity) there is much uncertainty surrounding the potential future role that Derbyshire might play in helping to meet the UK's need for this resource.

7.53 MPS1 states that conventional oil and gas development consists of three phases – exploration, appraisal and production. Each phase requires a separate planning permission. The Minerals Core Strategy will need to include policies that clearly distinguish between these three phases.

7.54 In the existing Minerals Local Plan this issue is dealt with by the inclusion of two separate policies, MP13 which controls proposals for mineral exploration generally and MP35 which controls proposals for production, processing and transporting. Both policies have criteria that ensure proposals will not have an unacceptable impact on the environment. Policy MP35 has more detailed criteria designed to secure this objective including whether the proposal is consistent with an approved overall scheme for the appraisal of, or production from, the area, and whether satisfactory arrangements have been made for the avoidance of seepage pollution, the off site disposal of drilling mud and the flaring and disposal of unwanted gas.

7.55 Including a similar criteria based approach in this plan seems likely to be the best way forward.

Issue 10: Managing how we make provision for Conventional Oil & Gas

a) Do you agree that we should include a policy for conventional oil and gas development which sets out criteria similar to those in the existing Minerals Local Plan (Policies MP13 & MP35)?

b) Please explain why you came to that decision, and if you chose 'no' please suggest an alternative approach that we could take

New Coal Exploitation Technologies

7.56 There are four main ways of recovering gas from coal to provide energy, namely extraction of ***coalbed methane***, ***coal mine methane*** or ***abandoned mine methane*** and ***underground coal gasification***.

7.57 The DTI, in 2004, published research into the UK resource for new coal exploitation technologies. In Derbyshire the report concludes that in the South Derbyshire Coalfield there are no working mines and therefore no potential for coal mine methane. It also suggests that abandoned mine methane and coalbed methane prospects are poor. In the North Derbyshire Coalfield, abandoned mine methane projects have been initiated at several sites in the area, with one at Whitwell Colliery still operational, indicating good potential.

7.58 The potential underground coal gasification resource is at present unknown, but there may be some potential which warrants further investigation.

7.59 MPS1 requires that we map the extent of the coalfield with reserves at depths below the surface of between 200m-1500m and of areas which are licensed for coal bed methane by the Coal Authority. We should also list the principle constraints likely to affect any proposed production and processing sites within those areas.

7.60 Given that methods of exploiting the resources mentioned above are still evolving, it is difficult to predict their viability in Derbyshire or their potential impacts over the plan period. Therefore, the best approach to deal with this issue is also likely to be a criteria based policy, similar to that currently contained within the Minerals Local Plan which sets

out criteria for assessing the environmentally acceptability of proposals for new coal exploitation technologies.

Issue 11: Managing how we make provision for New Coal Exploitation Technologies

a) Do you agree that we should include a policy for new coal exploitation technologies which sets out criteria similar to those for conventional oil and gas developments; as in the existing Minerals Local Plan policy MP35?

b) Please explain why you came to that decision, and if you chose 'no' please suggest an alternative approach that we could take

OBJECTIVE C: How should we contribute to a reduction in the supply of aggregates from the Peak District National Park?

7.61 Government and Regional planning policy stipulates that there should be a progressive reduction in the output of aggregate and other minerals from National Parks to help ensure the long term protection of their special environmental qualities. We therefore need to address the issue of how we can help to implement this policy. The best way seems to be to enable Derbyshire to take an appropriate increase in the share of regional aggregate provision to compensate for reductions in production from the Peak Park.

7.62 Figures indicate that, of the five quarries at which permissions for extraction are expected to come to an end within Peak National Park by 2016, 77% of the aggregate material is distributed to markets in the East Midlands, 21% is distributed to Yorkshire and Humberside markets and 1% is distributed to West Midlands markets. On average, these sites produce a total of around 1.2 million tonnes of aggregates per annum.

7.63 We have had discussions with the East Midlands Regional Aggregates Working Party, and the Peak District National Park, and an increase in Derbyshire's apportionment of crushed rock production up to 2020 has been agreed, which is equivalent to the lost Peak Park production that would have supplied markets in the East Midlands, i.e. 77%. (This amounts to an additional 12 million tonnes for the period 2005-2020). For sustainable development reasons it was considered inappropriate for Derbyshire to agree to increases which reflected the need to supply markets in other regions. Given Derbyshire's already excessive landbank of permitted reserves of over 800 million tonnes, this may appear to be a somewhat academic exercise. Notwithstanding this, it is important that Derbyshire should continue to play its part in seeking to achieve the strategic objective of reducing minerals production from the Peak Park.

Issue 12: Reducing the Supply of Aggregates from the Peak Park

a) Do you agree that Derbyshire should continue to contribute to the aim of reducing aggregates from the National Park through agreed increases in our apportionment based on the markets that Derbyshire is best placed to supply sustainably?

b) Please explain why you came to that decision, and if you chose 'no' please suggest an alternative approach that we could take

OBJECTIVE E: How do we Ensure the Sustainable Use of Minerals?

7.64 The ability of the Minerals Core Strategy to influence this objective is limited to particular areas. The main aspects of this objective which are currently in question are how we might increase the use of secondary and recycled aggregates and how we ensure the most efficient use of resources. (Efficiency of use is considered under issues for each mineral under Objective A, where applicable)

Increasing the Use of Secondary & Recycled Aggregates

7.65 Secondary aggregates are materials that are produced from other mineral operations or as industrial by-products, such as colliery spoil, quarry waste, power station ash and blast furnace slag. Recycled aggregates can similarly be sourced from a wide variety of materials, such as arisings from construction and demolition, highway maintenance, excavation and utility operations

7.66 “Securing the Future”, the Government’s sustainable development strategy, has two relevant key principles. These are the principles of “living within environmental limits” and “achieving a sustainable economy”; both of which would require us to make efficient or prudent use of natural resources, including primary minerals. Secondary and recycled aggregates are making an increasingly important contribution to the UK`s aggregate needs. They reduce the need and demand for quarried minerals (primary minerals) and, by re-using demolition materials as construction aggregate on site, reduce the need for material to be transported long distances to markets (the proximity principle), therefore helping to make effective and sustainable use of resources. The Government is committed, therefore, to maximising the use of secondary and recycled material in the construction industry.

7.67 Current national guidelines for the provision of aggregate minerals are based on the assumption that recycled wastes and other alternative materials will meet 23% of demand for aggregates over the period up to the end of 2016. There is no local target for Derbyshire in terms of producing aggregate from alternative sources; however the Government assumes that the East Midlands region as a whole will produce some 95 million tonnes of alternatives to aggregates over the period between 2001 and 2016. This

has enabled the regional figure for the required provision of primary land won aggregates to be at a lower level than it otherwise would be.

7.68 Policy 37 of the Regional Spatial Strategy requires that local development frameworks should identify and where necessary safeguard sites suitable for the recycling, reprocessing and transfer of materials including construction and demolition wastes. It is likely that the most appropriate sites to recycle construction & demolition wastes would be found near to where the waste is generated and where it can be re-used. We consider that the issue of finding suitable sites is a key strategic one and is, therefore, an issue that should be addressed during the preparation of the Derby & Derbyshire Waste Core Strategy.

Issue 13: Safeguarding Sites for Recycled Aggregates

a) Do you agree that the most appropriate place to consider the safeguarding of individual sites suitable for the recycling, reprocessing and transfer of materials including construction and demolition wastes is the Waste Core Strategy?

b) Please explain why you came to that decision, and if you chose 'no' please suggest an alternative approach that we could take

7.69 Mineral operations will often result in the production of waste which is often used in the restoration of quarry workings as a material to backfill workings but sometimes markets for the potential use of mineral wastes can be identified. Similarly, secondary materials that are the wastes or by products of industrial processes, for example ash from power stations, can be used as an alternative to aggregate minerals.

7.70 A particular issue for Derbyshire is that recycled and secondary aggregates are the main source of material used in the restoration of Derbyshire's sand and gravel quarries in the Trent Valley. The increasing use of this material as a substitute for primary aggregate, therefore, leads to a reduction in the amount of inert fill material for those sand and gravel workings which have to be restored to dry land. Solutions to this issue will be considered in the Trent Valley chapter.

7.71 Nevertheless, it is important in the interests of reducing the amount of primary aggregate and thus minimising the impact on the environment that we promote the production and use of secondary and recycled aggregates.

7.72 Within Derbyshire there are a number of spoil tips related to industrial purposes or former collieries which may contain material suitable for use as secondary aggregates. However, in many cases these will have re-vegetated and should now be considered in the same way as a new site.

Issue 14: Reworking Spoil Tips for Secondary Aggregates

a) Should we have a criteria-based policy relating to reworking of spoil tips for secondary aggregates or seek to identify specific sites where these products can be worked?

b) Please explain why you came to that decision

OBJECTIVE F: Safeguarding Minerals

7.73 Revised national guidance on mineral safeguarding is due to be published but this should not alter to any significant degree what follows in this section.

7.74 Government policy sets out that mineral planning authorities should define mineral safeguarding areas (MSAs). They are not a tool to guide future mineral extraction. Their purpose is to ensure that mineral resources are taken into account when they are at risk from being lost to non-mineral development. This approach will ensure that minerals are not sterilised unnecessarily by other forms of development, so that that they are available for use by future generations. There is no presumption that these resources will be worked i.e. they do not represent specific allocations. There is also no presumption against mineral extraction in areas that are not safeguarded, as MSAs may not necessarily capture every viable resource.

Which Minerals will be Safeguarded?

7.75 All minerals of sufficient economic value and those of conservation value will be considered for safeguarding. This includes sand & gravel, Limestone for both aggregate and industrial uses, Coal, building stone and brick clay.

How will they work?

7.76 In two tier authority areas such as Derbyshire, Government policy requires County MPAs to define ***Mineral Consultation Areas*** (MCAs) based on MSAs.

7.77 The MCA, within which the MPA will be consulted on applications for non mineral development, will include the safeguarding area (i.e. the resource) and also a wider area (buffer zone) beyond the area of the resource. This is because the environmental effects of quarrying often extend beyond the boundary of the resource and the construction of development close to a resource could limit its future use. The buffer zone will help ensure that development close to the margin of the resource is controlled and does not sterilise the resource. Different types of mineral would require buffer zones of varying size, depending on issues such as blasting, for example. Blasting could have significant impacts on areas surrounding limestone quarries if sensitive developments were permitted to close to them.

7.78 The District planning authorities will have to include the Mineral Consultation Areas on their proposals maps and will be obliged to consult the mineral planning authority on developments which are proposed within them. This mechanism will ensure that the Mineral Planning Authority is able to advise the District planning authority if the reserve is of sufficient value to warrant protection and whether planning permission for the non-mineral development should therefore be refused.

7.79 Existing and potential mineral facilities such as wharves, railheads and recycling facilities located beyond the actual resource can also be safeguarded. This is unlikely to be a major issue in Derbyshire.

Issue 15: Definition of Mineral Safeguarding Areas

a) What will be the most appropriate way of defining MSAs?

b) It is likely to be inappropriate and unworkable to define all resources, so what criteria do you think we should use to ensure that sufficient minerals are safeguarded for the future?

Prior Extraction

7.80 Where there is an overriding need for development to take place on land within urban areas containing important workable mineral deposits, the mineral should, wherever possible, be extracted in advance of development unless it would lead to unacceptable social, economic or environmental impacts. This is most likely to apply to surface mined coal.

7.81 Reserves of coal still exist in the county and can often be found underlying the urban areas in the east of the county at shallow enough depths to allow its extraction by surface mining methods. This is the only mineral in Derbyshire where prior extraction is likely to be considered in urban areas, to allow for extraction to be considered as part of the redevelopment of a large site. This could be embodied in a safeguarding policy, such as suggested in Issue 16.

7.82 The safeguarding area for surface coal would not have to cover the urban areas if this policy is applied.

Issue 16: Safeguarding Policy

Existing MLP Policy MP17 states proposals for development which would sterilise the future working of economically workable mineral deposits will be resisted, except where there is an overriding need for the development and prior extraction cannot be undertaken. Where the development is considered essential and proven mineral deposits would be sterilised, permission will be granted provided it would not lead to adverse environmental impacts.

a) Do you agree that we should continue this approach in the Minerals Core Strategy?

b) Please explain why you came to that decision.

OBJECTIVE G: Reducing the Landbank of Permitted Reserves of Crushed Rock in Derbyshire

7.83 Government policy in MPS1 sets out the requirement to reduce the size of landbanks where they are judged to be excessive. It requires MPAs to maintain a landbank of crushed rock to last for 10 years.

7.84 There are over 800 million tonnes of hard rock reserves (for aggregate use) in Derbyshire, the vast majority being limestone. This is sufficient to enable production to continue for over 95 years. As a result, we are obliged by Government policy to take steps to help reduce this landbank of aggregate crushed rock. Additional sites will not, be required to meet the general demand for aggregate crushed rock during the lifetime of this Core Strategy. Moreover, MPS1 says that authorities should take steps to try to reduce excessive landbanks of aggregate crushed rock.

7.85 The issue regarding aggregate crushed rock, therefore, will be how we try to reduce the amount of reserves in Derbyshire. By simply not allowing any new permissions, it may be difficult to achieve any meaningful reduction in the size of the landbank. However, it may be possible to grant some new permissions in order to reach agreement with operators to relinquish larger reserves elsewhere. One option is that this could include the relinquishment of reserves in the Peak District National Park. This would only happen if there were clear benefits to be obtained from doing so, for example, the existing operation may be more environmentally or socially sensitive than the new proposed site.

7.86 We think that, in order to have an impact on the huge landbank of permitted reserves of crushed rock in Derbyshire, operators should relinquish a substantially larger proportion of reserves than is permitted as part of a new permission, for example, 2-3 times more reserves could be given up than is granted permission. This may vary from case to case depending on the particular circumstances involved. If the relinquished permissions are within the Peak National Park, this would have the additional benefit of helping to achieve the desired reduction in the amount of aggregate production from within the Park.

7.87 For these reasons, we think that some new permissions may be necessary to achieve some reduction in the overall landbank of aggregate crushed rock. An example of how we think this could be achieved is as follows:

7.88 We think there may be potential for further exploration of aggregate quality crushed rock in the Permian Limestone resource in the east of the county. There is one quarry quarrying the aggregate grade limestone in this area. This is Bolsover Moor Quarry. This quarry is situated on higher ground to the east of Bolsover and has potential to be extended and could replace larger reserves elsewhere in the county.

7.89 Relatively low grade material is extracted from this quarry, mainly for use as roadstone. Depending on the particular markets to be supplied, it could replace the use of a proportion of the higher grade Carboniferous Limestone, which may be quarried for this purpose from the west of the county in the Matlock/Wirksworth or Buxton areas, and may, therefore, represent a more efficient and sustainable use of Derbyshire's mineral resources. The topography of the landscape around the Bolsover Moor Quarry means that an extension might be worked in a less intrusive way than quarries in the western part of the county. Increased and continued production here in favour of quarries in the west of Derbyshire could also bring the benefit of reducing cross county lorry movements from quarries in the west to markets in the east of the region and beyond.

7.90 The operator of this quarry would have to give up a greater amount of aggregate crushed rock reserves elsewhere in the county in exchange for an extension at Bolsover Moor Quarry.

Issue 17: Reducing the Landbank for Aggregate Crushed Rock in Derbyshire

a) What would be the best way of reducing the landbank for crushed rock in Derbyshire?

Option 1: Grant limited new permissions for aggregate crushed rock if operators agree to relinquish reserves of a greater amount in Derbyshire as a condition of the permission.

Option 2: Grant limited new permissions for aggregate crushed rock if operators agree to relinquish reserves of a greater amount in Derbyshire or the Peak District National Park as a condition of the permission.

A different option: Please specify

b) Please explain why you came to that decision. If you chose 'a different option', please explain what that would be.

OBJECTIVE K: Restoration of Mineral Workings

7.91 For the most part, we believe that this objective can be achieved through the application of appropriate core policies. However, there are two specific area of the county that might benefit from a more proactive approach.

A Strategy for Restoring Sand & Gravel Workings in the Trent Valley

7.92 In the past, sand and gravel workings have been restored to after-uses with an approach that has concentrated on the requirements for the specific site rather than also considering its context within the wider surrounding landscape of the river corridor. As sand and gravel workings have developed over a wider area, this approach has resulted in a landscape which has become progressively fragmented; the overall cultural and environmental integrity of the landscape is gradually being altered.

7.93 A better approach may be to develop an overall strategy for the restoration of sand and gravel workings in the Trent Valley, to ensure that the "new" landscape is planned properly and coherently. This could assist in the future allocation of sites for sand and gravel extraction.

Issue 18: Should there be a Strategic Scheme for the Restoration of Sand & Gravel Workings in the Trent Valley area?

a) What approach should we take to the restoration of mineral workings in the Trent Valley?

Option 1: Prepare a comprehensive long term landscape strategy for the restoration of sand and gravel workings in the Trent Valley, accepting that this may guide the allocation of new sites.

Option 2: Continue to apply a criterion based approach to the restoration of sand and gravel workings, based on local circumstances, devising restoration schemes for quarries as they arise, guided by local circumstances only.

A different option: Please specify below

b) Please explain why you came to that decision. If you chose 'a different option', please explain what that would be.

7.94 If this approach was taken, we would devise a landscape appraisal based analysis and plan of the Trent Valley showing areas designated for certain after-uses, which would be used to guide restoration schemes if or when a particular site was worked for sand and gravel. It is likely that certain areas would be protected from sand and gravel extraction, as a result of their historic, cultural or environmental importance.

7.95 There is an increasing shortage of inert fill material with which to restore former sand and gravel workings. The main reason for this is that an increasing majority of potential inert material is now being re-used as a substitute for primary aggregate. This has important implications for any strategy to restore sites in the river valleys and means the majority of fill material that becomes available will have to be directed to sites where restoration to dry after uses is most critical. This will apply particularly to sites close to East Midlands Airport where, if restored to water uses, would increase the risk of birdstrike. This will be an important consideration in drawing up a restoration strategy for the Trent Valley.

Restoration of Sites on the A515 Corridor, Buxton

7.96 There is a chain of four major limestone producing quarries to the west of the A515 near Buxton, which have a significant impact on the landscape. These are Dowlow, Brierlow, Hillhead and Hindlow. A strategic restoration scheme for this area could be drawn up to guide the ongoing restoration of these sites, to help minimise the impact of these quarries over time. If any new or revised schemes for working these sites come forward, these may present opportunities to draw up revised restoration schemes for the sites, guided by the overall strategic scheme.

Issue 19: Should there be a Strategic Scheme for the Restoration of Quarries along the A515 Corridor, Buxton?

a) What approach should we take to the restoration of mineral workings along the A515 Corridor, Buxton?

Option 1: Prepare a comprehensive long term landscape strategy for the restoration of limestone quarries along the A515 Corridor.

Option 2: Continue to apply a criteria based approach to the restoration of these quarries, based on local circumstances, devising restoration schemes for quarries as they arise, guided by circumstances specific to the particular quarry only.

A different option: Please specify below

b) Please explain why you came to that decision. If you chose 'a different option', please explain what that would be.

8 Site Suggestions

8.1 The Core Strategy will identify potentially suitable strategic sites for minerals extraction. Government policy states that core strategies can only include those sites which are considered to be central to the delivery of the strategy. We have said above that we consider all sand and gravel sites to be strategic in this sense. It is likely also that sites for the extraction of industrial limestone would be considered as strategic. Given the huge landbank, it is unlikely that we will have to find any additional sites for aggregate crushed rock, although sites which offer benefits in sustainability terms could be considered in exchange for existing reserves, provided this would result in a reduction in the overall landbank. We may prepare a Sites DPD at a later stage, which will show detailed site allocations.

8.2 It is important that where operators and landowners know of such sites, that these are suggested at as early a stage in the plan preparation process as possible. This will help to ensure that sufficient time is available for a thorough assessment of the site to be conducted without holding up the adoption of the plan.

Issue 20: Site Suggestions

Would you like to propose a site for possible inclusion within the Minerals Core Strategy?

If you say yes we will contact you to discuss the necessary next steps. (Please ensure you have provided appropriate contact details.

APPENDIX A Glossary of Terms

The terminology used in this document is summarised below:

Abandoned Mine Methane – Can be recovered from previously working but now disused underground coal mines

After-uses – The use to which land is put once it has been restored following its working for minerals.

Aggregates – Materials such as sand and gravel and crushed rock, which are used in the construction industry for purposes, such as the production of concrete and roadstone.

Apportionment – The County's share of the Regional aggregate provision.

Biodiversity - The diversity of plant and animal life in a particular habitat.

Coalbed Methane – Can be extracted from some coal deposits by drilling wells into a coal seam

Coal Mine Methane – Can be recovered from working underground coal mines

Derby and Derbyshire Minerals and Waste Development Framework – The portfolio of planning policy documents which together will provide the spatial planning strategy for minerals development in Derby and Derbyshire.

Development Plan Document – Statutory documents produced under the Planning Acts that set out the spatial planning policies and proposals for the development and use of land. Decisions on planning applications must conform to the policies set out in the DPDs.

East Midlands Regional Assembly – The body which has responsibility for preparing the Regional Spatial Strategy (The Regional Plan). As of April 2010, East Midlands Councils will take over these responsibilities.

Inert Fill – Waste material that does not undergo any significant transformations which can be used to fill voids left by mineral extraction to restore land to dry after uses.

Landbank – The stock of mineral reserves which has planning permission for winning and working.

Minerals – Technically, a mineral is a naturally occurring solid that has a specific chemical composition. For the purposes of this plan, they are essentially rocks, which are an agglomeration of minerals and which can be used for a variety of economic purposes.

Mineral Consultation Area – An area (comprising the Mineral Safeguarding Area and a buffer zone) identified to ensure consultation between the relevant Local Planning Authority and the Mineral Planning Authority before non-mineral planning applications made within the area are determined, to ensure that valuable mineral resources are not sterilised.

Mineral Planning Authority – The organisation which has statutory planning powers relating to mineral development in a particular area. In respect of this plan, these powers rest with Derbyshire County Council and Derby City Council.

Mineral Resources – All minerals which have the potential to be extracted

Mineral Reserves – Mineral resources which have the benefit of planning permission for their winning and working.

Primary Aggregates – Naturally occurring material which is extracted freshly from the ground to be used in construction.

Recycled Aggregates – Recycled waste products from the construction and demolition industry, including concrete, rubble and road planings that is crushed and can be used in place of primary aggregates.

Restoration – Operations which are designed to return an area to an acceptable environmental state, whether for the original use or for a new use following mineral working.

Safeguarding – Protecting valuable minerals from being sterilised by other forms of development so that future generations have a sufficient supply of these minerals to meet their needs.

Secondary Aggregates – By-product wastes, such as power station ash and colliery waste that can be used for low grade aggregate uses.

Soundness – Whether the plan has been prepared in accordance with a series of nationally agreed tests and procedures.

Special Areas of Conservation (SACs) – A Site of Special Scientific Interest (SSSI) which is considered to be of international importance, and designated under the EC Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna.

Sterilisation of Mineral Resources – When development of land prevents possible mineral extraction in the foreseeable future.

Super Output Areas – A geographical area designed for the collection and publication of small area statistics.

Sustainability Appraisal – An evaluation process for assessing the environmental, social, economic and other sustainability impacts of plans and programmes. It is a statutory requirement under the 2004 Planning Act.

Underground Coal Gasification – An in-situ process whereby non-mined coal seams are converted into gas

APPENDIX B Key to Mineral Sites in Figure 3

Code	Site Name	District	Main Mineral	Other Minerals	Planned After use	Operational in 2009?
AD	Ashwood Dale	High Peak	Limestone (Industrial)		None	Yes
AR	Arden	High Peak	Sandstone (Building Stone)		Part Landfill	Yes
AT	Attenborough	Erewash	Sand & Gravel		Amenity	Yes
BE	Balleye	Derbyshire Dales	Vein Minerals	Limestone (Aggregate)	None	Yes
BH	Bole Hill	North East Derbyshire	Sandstone (Building Stone)		Amenity	No
BL	Brierlow	High Peak	Limestone (Aggregate)		Agriculture & Amenity	Yes
BM	Bolsover Moor	Bolsover	Limestone (Aggregate)		Agriculture & Amenity	No
BO	Bone Mill	Derbyshire Dales	Limestone (Aggregate)	Limestone (Industrial)	None	Yes
BR	Brassington Moor	Derbyshire Dales	Limestone (Industrial)	Limestone (Aggregate)	Amenity	Yes
BV	Birch Vale	High Peak	Sandstone (Building Stone)		None	Yes
BY	Brickyard Farm	Derbyshire Dales	Sandstone (Building Stone)		Amenity	Yes
CL	Callywhite Lane	North East Derbyshire	Recycled Aggregates		Landfill	Yes
CR	Crich	Amber Valley	Limestone (Aggregate)		Amenity	Yes
CS	Chaddesden Sidings	Derby City	Recycled & Secondary Aggregates		Part business, part open leisure	Yes
DE	Dene	Derbyshire Dales	Limestone (Aggregate)	Limestone (Industrial)	Agriculture & Amenity	Yes
DH	Dove Holes	High Peak	Limestone (Aggregate)		Agriculture & Amenity	Yes

DK	Duke's	Amber Valley	Sandstone (Building Stone)		Amenity	Yes
DO	Dowlow	High Peak	Limestone (Aggregate)	Limestone (Industrial)	Agriculture & Amenity	Yes
EC	Eckington	North East Derbyshire	Coal		None (Underground)	Yes
EN	Engine Reclamation Site	Bolsover	Coal		Agriculture & Amenity	Yes
EV	Elvaston	South Derbyshire	Sand & Gravel		Agriculture & Amenity	No
FB	Former Biwaters	North East Derbyshire	Coal		Residential & Commercial	Yes
FX	Fowlow Tip	Chesterfield	Clay (Brick)	Coal, Fireclay, Recycled Aggregates	Agriculture & Clay Stocking (temporary use for 20 years)	Yes
GM	Grange Mill	Derbyshire Dales	Limestone (Industrial)	Limestone (Aggregate)	Amenity	Yes
HA	Halldale	Derbyshire Dales	Sandstone (Building Stone)		Amenity	Yes
HD	Hayfield	High Peak	Sandstone (Building Stone)		Amenity	No
HG	Hoe Grange	Derbyshire Dales	Limestone		None	No
HH	Hardwick Hall	Bolsover	Sandstone (Building Stone)		Amenity	Yes
HI	Hillhead	High Peak	Limestone		Amenity	No
HL	Hindlow	High Peak	Limestone		Amenity	No
HY	Highlikely	North East Derbyshire?	Sandstone (Building Stone)		None	Yes
LH	Lodge House	Amber Valley	Coal		Agriculture & Amenity	Yes
MK	Markham	Chesterfield	Gas (Abandoned Mine Methane		None	No

ME	Mercaston	Derbyshire Dales	Sand & Gravel		Agriculture & Amenity	Yes
MM	Middletone Mine	Derbyshire Dales	Limestone		Part Industry, Part None (Underground)	No
MP	Middle Peak	Derbyshire Dales	Limestone		Agriculture & Amenity	No
MW	Mouselow	High Peak	Clay	Sandstone (Building Stone)	Agriculture & Amenity	Yes
PF	Potlocks Farm	South Derbyshire	Sand & Gravel		None	No
SB	Shirebrook	Bolsover	Gas (Abandoned Mine Methane)		None	No
SH	Shardlow	South Derbyshire	Sand & Gravel		Agriculture	Yes
SL	Slinter Top	Derbyshire Dales	Vein Minerals	Limestone (Aggregate)	Landfill & Agriculture & Amenity	Yes
ST	Stancliffe	Derbyshire Dales	Sandstone		Recreation & Amenity	Yes
SW	Swarkestone	South Derbyshire	Sand & Gravel		Agriculture & Amenity	Yes
TU	Tunstead	High Peak	Limestone (Industrial)	Limestone (Aggregate)	None	Yes
WC	Whitwell Colliery	Bolsover	Gas (Abandoned Mine Methane		None	Yes
WG	Waingroves Brickworks	Amber Valley	Clay & Shale		Agriculture & Amenity	No
WH	Whitwell	Bolsover	Limestone (Industrial)	Limestone (Aggregate)	Agriculture & Amenity	Yes
WN	Willington	South Derbyshire	Sand & Gravel		Agriculture & Amenity	Yes

Please contact us if you need help reading this document or any part of it translating.

Polish

Aby ułatwić Państwu dostęp do tych informacji, możemy je Państwu przekazać w innym formacie, stylu lub języku.
Prosimy o kontakt: 01332 641714 Tel. tekstowy: 01332 256666

Hindi

ਇਹ ਜਾਣਕਾਰੀ ਅਸੀਂ ਤੁਹਾਨੂੰ ਕਿਸੇ ਵੀ ਹੋਰ ਤਰੀਕੇ ਨਾਲ, ਕਿਸੇ ਵੀ ਹੋਰ ਰੂਪ ਜਾਂ ਬੋਲੀ ਵਿੱਚ ਦੇ ਸਕਦੇ ਹਾਂ, ਜਿਹੜੀ ਇਸ ਤੱਕ ਪਹੁੰਚ ਕਰਨ ਵਿੱਚ ਤੁਹਾਡੀ ਸਹਾਇਤਾ ਕਰ ਸਕਦੀ ਹੋਵੇ। ਕਿਰਪਾ ਕਰਕੇ ਸਾਡੇ ਨਾਲ ਟੈਲੀਫ਼ੋਨ 01332 255392 ਮਿਨੀਕਮ 01332 256666 ਤੇ ਸੰਪਰਕ ਕਰੋ।

Urdu

یہ معلومات ہم آپ کو کسی دیگر ایسے طریقے، انداز اور زبان میں مہیا کر سکتے ہیں جو اس تک رسائی میں آپ کی مدد کرے۔ براہ کرم 01332 255392 منی کام 01332 256666 پر ہم سے رابطہ کریں۔

We can give you this information in any other way, style or language that will help you access it.
Please contact us on 01332 255076
Minicom 01332 256666.

DERBY CITY COUNCIL

DERBYSHIRE
County Council
Improving life for local people

Designed and produced by Derbyshire County Council