Planning and Compulsory Purchase Act 2004
Minerals and Waste Development Framework

WARWICKSHIRE MINERAL DEVELOPMENT FRAMEWORK CORE STRATEGY

PREFERRED OPTIONS

DATE: January 2007

WARWICKSHIRE COUNTY COUNCIL

Contents

1. INTRODUCTION

1.1 The Preferred Options is the second Statutory stage of consultation and the third one including the Preliminary Consultation that informs the preparation process of the Core Strategy Development Plan Document (DPD) for the Minerals Development Framework. This document sets out a number of broad issues on which we are seeking views.

1.2 The aim of this document is to build on the feedback from the preliminary consultation entitled *Minerals Core Strategy: Preliminary Consultation*, that took place between 20th February and 3rd April 2006 and the *Minerals Core Strategy: Issues and Options* consultation which took place between the 28th July and the 8th September 2006

1.3 The four stages of consultation as set out in ***Figure 1*** will all contribute to the production of the Minerals Core Strategy Development Plan Document (DPD). The Minerals Core Strategy will set a long-term vision, objectives and the overall strategy for mineral development across the County up to 2021, and provide the framework for guidance and assessment of minerals planning applications.

1.4 The aim of the Preferred Options consultation is to provide an opportunity to engage key stakeholders in a discussion on the selected Preferred Options and associated Policy Principles which have been arrived at trough the consultation on the previous Preliminary and Issues and Options papers.

How You Can Contribute

Anybody is welcome to respond to this consultation. You can either:

1. Complete the questionnaire enclosed

2. Complete the on-line questionnaire (www.warwickshire.gov.uk/mineralscorestrategy)

3. Obtain a copy from your local Council offices or local library

4. Telephone 01926 412391 or 412907 and request a copy that will be posted to you

5. E-mail: planningstrategy@warwickshire.gov.uk

6. Write to:

Preferred Options: Minerals Core Strategy

Planning Policy

Environment and Economy Directorate

Warwickshire County Council

P O Box 43

Shire Hall

Warwick

CV34 4SX

Online Availability

1.7 This document is available on our website during the consultation period: www.warwickshire.gov.uk/mineralscorestrategy.

The document and questionnaire can be downloaded using acrobat or alternatively you can use the online questionnaire directly.

Consultation Period

1.8 There is a six week consultation period for the Preferred Options paper from the **31st January to 13th March 2007**. Please be aware that the contrast to the previous two consultation periods this is a **statutory** period of consultation as laid down in

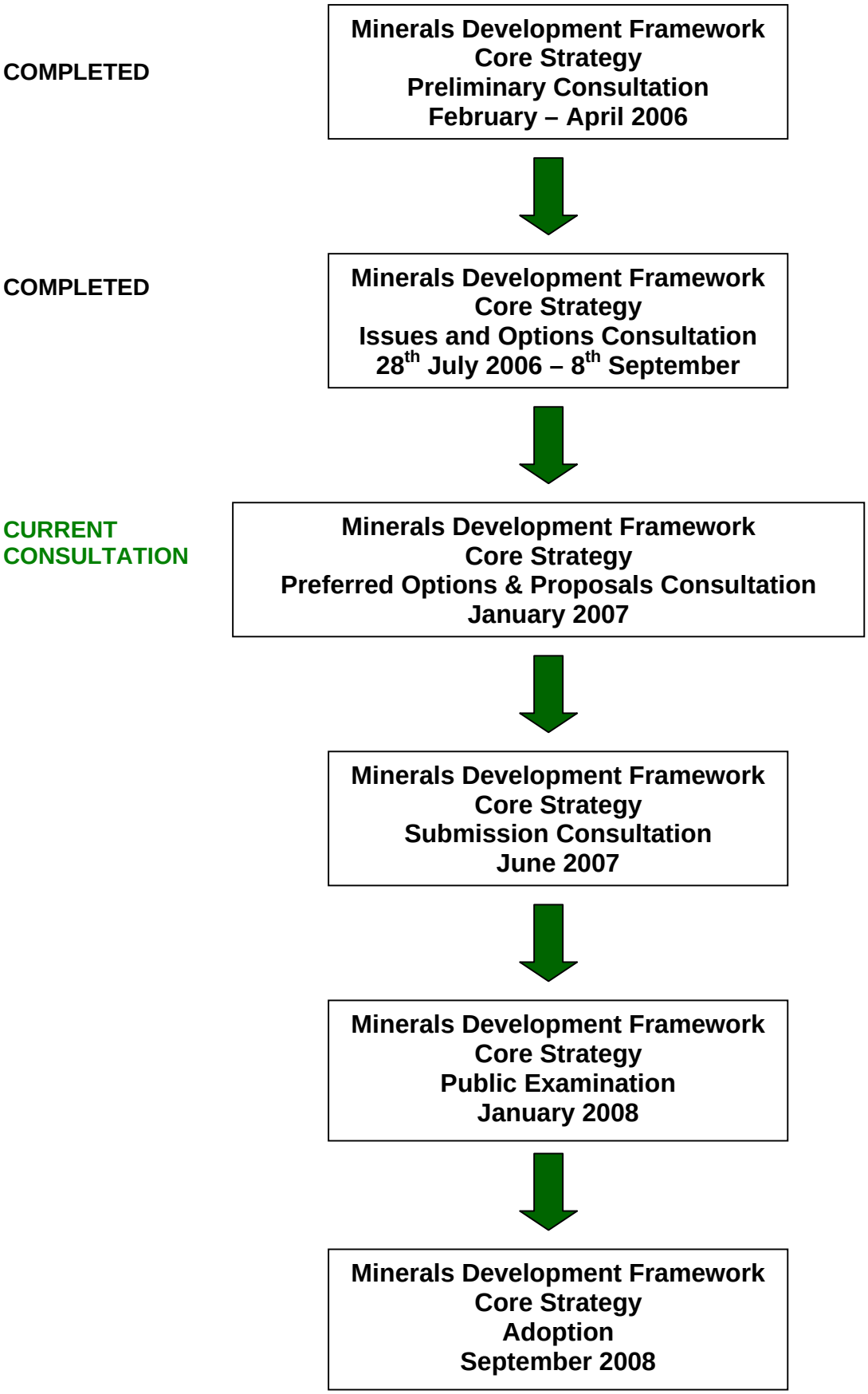
paragraph 27(2)(a) of the Town and Country Planning (Local Development)(England) Regulations 2004. This means that we will be unable to consider responses submitted after 13th March, where as before we have been able to allow late submissions. It also means that other County Council policies on consultation like the Warwickshire Compact (which sites a 12 week consultation period with the voluntary sector) cannot apply.

What Happens Next?

1.9 Following this consultation, all the comments will be collated and a report written summarising the findings. Each representation received during the **6 week statutory consultation period** will be considered by Warwickshire County Council. These comments will then be incorporated (wherever possible) in the Submission Minerals Core Strategy which will be submitted to the Secretary of State and consulted on for a six week period commencing June 2007.

More details can be found in the Minerals and Waste development scheme which is available on request, using the above details and on our website www.warwickshire.gov.uk/MWDS

Figure 1: The Stages of the production of the Minerals Development Framework Core Strategy Development Plan Document (DPD)



2. Warwickshire in Context

2.1 Warwickshire is located to the south and east of the West Midlands conurbation, having strong links with Coventry, Solihull and Birmingham. With a total area of over 197,500 ha, the County is the gateway from the West Midlands to identified key growth areas within the rest of the UK. Warwickshire has five Local Planning Authorities within its administrative boundaries, the Boroughs of North Warwickshire, Nuneaton and Bedworth and Rugby as well as the Districts of Warwick and Stratford on Avon.

Population of Warwickshire

2.2 Warwickshire has a population of 519,301 with just under a quarter of a million households. The bulk of Warwickshire's population lives in the north and centre of the County, that has traditionally been industrial; with towns such as Nuneaton, Bedworth and Rugby whose established industries include (or included) coal mining, textiles, cement production, and engineering. In the centre and west of Warwickshire lie the prosperous towns of Leamington Spa, Warwick, Kenilworth, and Stratford-upon-Avon.

2.3 The south of the county is largely rural and sparsely populated. The largest towns in Warwickshire as of 2004 are: Nuneaton (pop. 77,500), Rugby (62,000), Leamington Spa (42,300), and Bedworth (32,500).

Table 1: Population of Warwickshire

Districts	Population	Number of Households
West Midlands	5,267,308	2,219,893
North Warwickshire	61,900	26,118
Nuneaton and Bedworth	120,300	51,410
Rugby	89,200	39,333
Stratford-on-Avon	115,200	47,000
Warwick	132,700	56,700
Warwickshire	519,300	220,561

Source: Census 2001, partly updated by Districts/Boroughs where figures available.

2.4 The population of Warwickshire has grown by 6% over the past 20 years compared to an overall national rate of increase of 4.9%. Growth has not been consistent across the County with Stratford-on-Avon and Warwick districts experiencing 10.7% and 9.4% increases respectively whilst North Warwickshire and Nuneaton and Bedworth have seen more modest change (3.1% and 4.6% respectively). Rugby has remained relatively unchanged during this period.

Economic Context

2.5 The economic climate of an area is an influencing factor for the demand for minerals. Gross Value Added (GVA) is a measure of the total economic activity in a region and provides an indication of the health of the region's economy.

2.6 Warwickshire is ranked third in the West Midlands behind Birmingham and Solihull in terms of per capita GVA. Between 1995 and 2002 the Warwickshire economy has grown by an average annual rate of 5.9%, which compares favourably with the UK average of 5.1% and the West Midlands figure of 4.6%.

Transport

The Highway Network

2.7 Warwickshire is served by a number of major transport routes due in part to its location adjacent to the West Midlands conurbation. The M1, M6, M40, M42 and M69 motorways cross through the County, while key trunk routes include the A5, A14 A45 and A46. There are important motorway and trunk road interchanges at

Longbridge (M40/A46), Tollbar End (A45/A46) and M1 Junction (M1/M6/A14).There is also a comprehensive network of secondary and local routes serving local destinations.

Rail Network

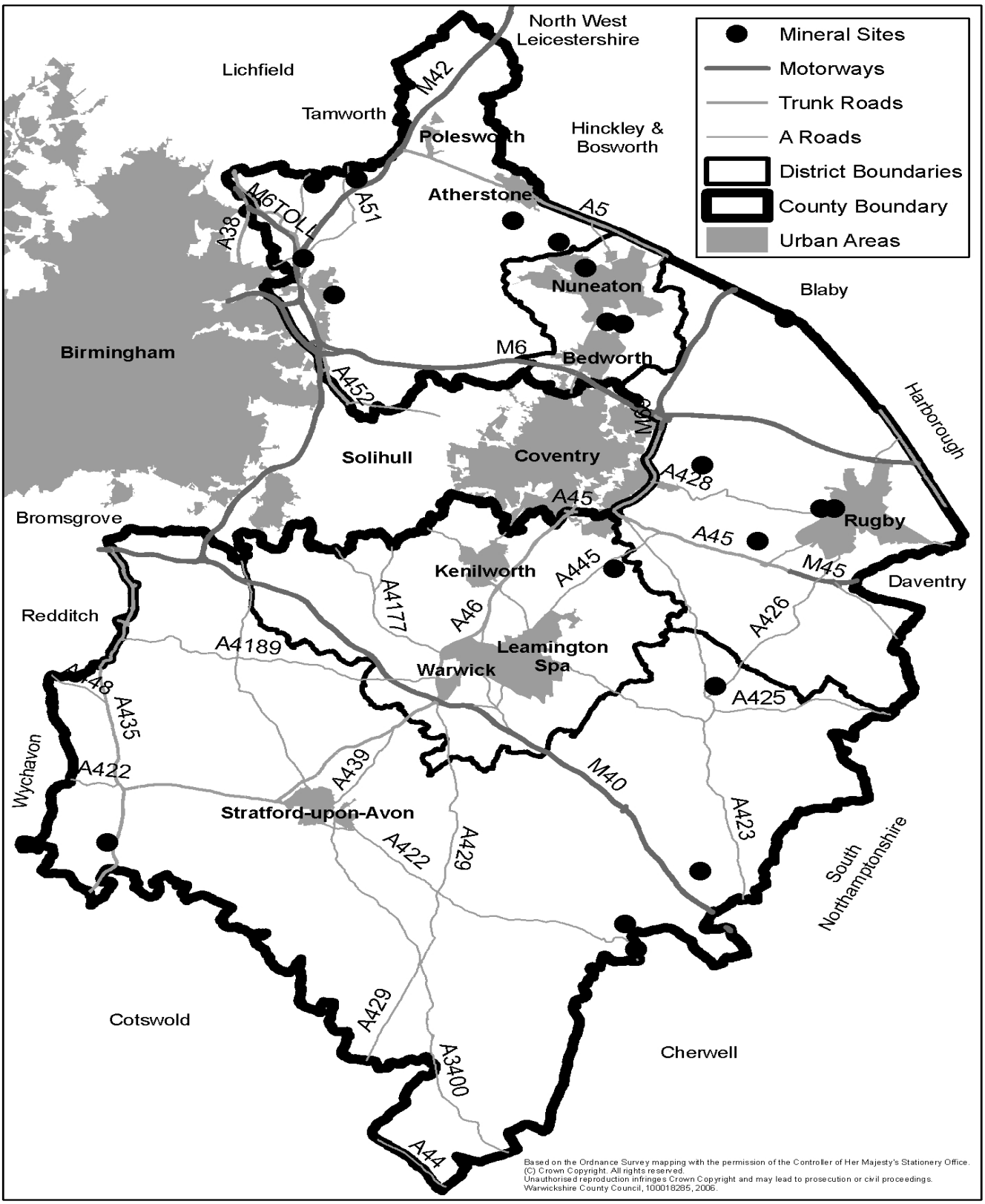
2.8 The County has a network of main line inter-city, cross-country and local rail services that meet a variety of travel and commuter needs. Coventry, Rugby and Nuneaton are situated on the West Coast Main Line and provide inter-city services to Birmingham New Street and London Euston. There is also a high frequency cross-country route running between the South Coast and the North of England which stop at Leamington and Coventry. In addition to the main passenger routes there are additional local services crossing the county.

Road and Rail Freight

2.9 Warwickshire has a high level of through freight traffic movement, both road (M6, M40, M42 and A46) and rail via the West Coast Mainline and the Midlands to the South Coast).

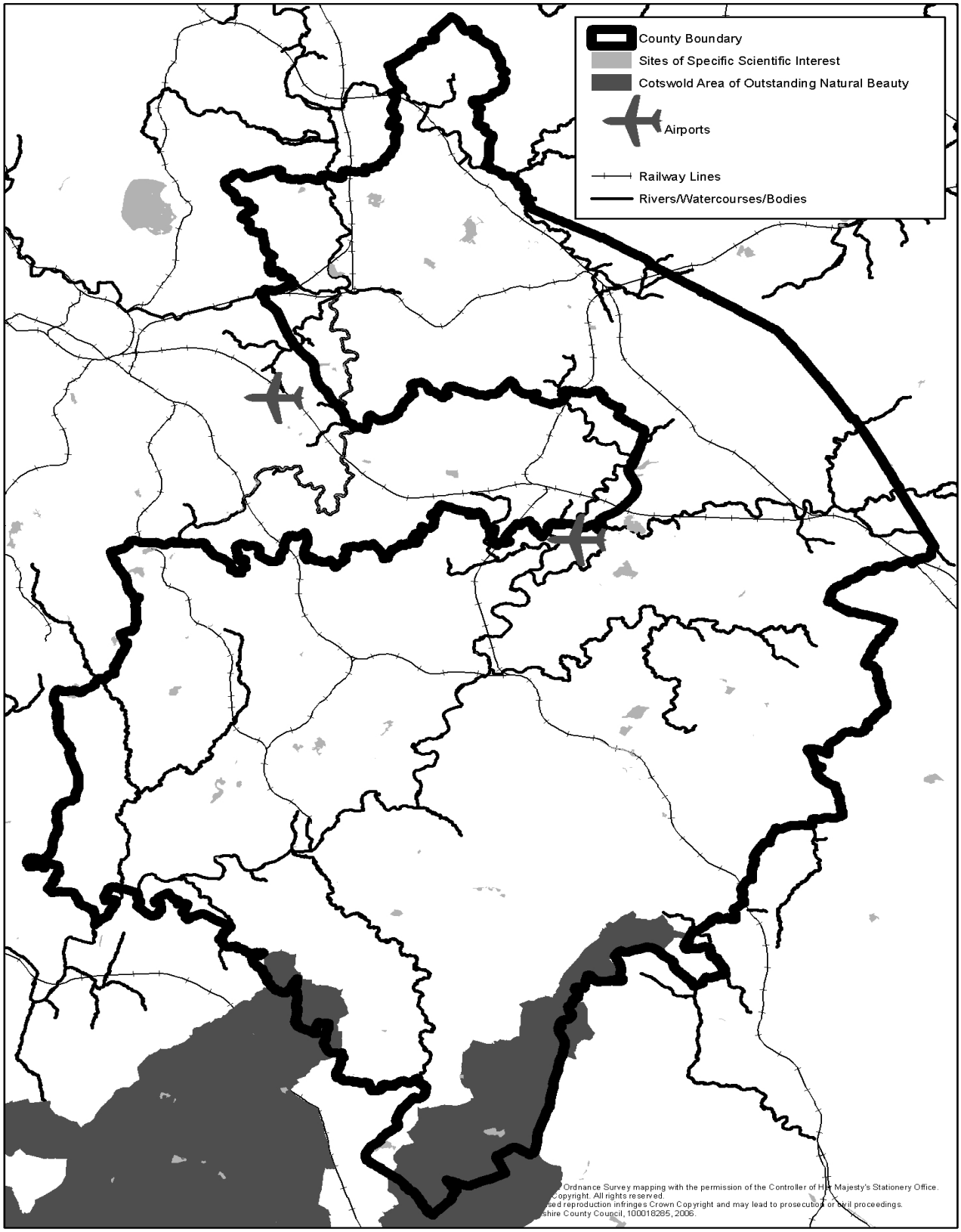
2.10 Nationally, road freight increased 17% between 1990 and 2003 whilst rail freight decreased during the mid 1990's. Since Privatisation of the rail services levels of rail freight is continuing to grow.

2.11 There are a number of small and medium sized rail freight facilities across Warwickshire that predominately serve specific sites or railheads. Hams Hall Freight Terminal and Daventry International Rail Freight Terminal (DRIFT) in Northamptonshire provide multi-modal multi modal facilities which link to a number of national and international destinations.



Key Map 1: Location of Major Roads, Settlements and Minerals Sites in Warwickshire

Key Map 2: Location of SSSI's, Railways, Watercourses and the Cotswold AONB.



Minerals

Mineral Extraction in Warwickshire

2.12 The diverse mineral resources of Warwickshire have been exploited since the first human settlements developed in the county. Today extraction of coal, sand and gravel, crushed rock, brick clay and ironstone still occur and extensive reserves of these minerals still exist.

2.13 Historically bricks have been made across Warwickshire wherever a suitable clay was found. The use of local clay for the production of bricks has ceased with the exception of the large scale brickworks at Kingsbury which extracts the high quality Etruria Marl which is part of the Counties Carboniferous sequences of rocks.

2.14 The use of local stone for building purposes has been widespread in Warwickshire with Warwick and Kenilworth Castles being obvious examples. Stately homes, churches and various settlements have been constructed from local materials such as Triassic sandstones and Jurassic Ironstones, reflecting the counties varied geology. However, the stone quarries supplying local materials have all but finished which is creating a problem in repairing local buildings and retaining the local distinctiveness of many towns and villages.

2.15 Coal from the Carboniferous Coal Measures which are exposed at the surface in the north of the county has been exploited since Roman Times. Small scale operations from shallow pits continued until the middle to late 19th Century when numerous deep mines began operation in North Warwickshire reflecting an increase in the demand for coal and advances in mining technology. One deep mine remains in operation at Daw Mill, nearly Arley in North Warwickshire. Current coal extraction takes place in the Corley Moor area at a depth of around 800 – 900 metres.

2.16 The production of cement has a long history in Warwickshire with extraction of the required minerals (Jurassic Lias limestones and shales) occurring around Southam and Rugby. Current production comes from the one cement kiln in Rugby which locally extracted materials are mixed with chalk from Bedfordshire.

Aggregates

2.17 Aggregates are defined as rock which can be crushed artificially or which already exist as naturally occurring fragments (sand & gravel). The use of an aggregate is determined by its physical and chemical properties and therefore they have a wide range of end uses in the construction industry. **Primary Aggregates** are produced directly from mineral deposits whilst **Secondary Aggregates** are materials which originate as waste products from quarrying and mining activities or as a by-products from an industrial processes which can be used as an aggregate in the construction industry.

2.20 Construction and Demolition waste can be crushed, screened and processed to produce a **Recycled Aggregate** and its use is becoming increasingly important at reducing the need for Primary Extraction. As the Environment Agency defines recycled and secondary aggregates as predominately waste materials, the issues relating to these processes will be considered and addressed in full in the Waste Development Framework, although their importance as a mineral resource is recognised and linked with the Minerals Development Framework.

2.21 Warwickshire's proximity to the West Midlands Conurbation and South Midlands Growth Area of Northampton and Milton Keynes has created a demand for minerals, especially construction materials such as aggregates and cement. The important sand and gravel producing areas in the county are the "River Terrace" deposits of the Tame and Avon, the fluvial-glacial sands around Rugby and the inter-glacial deposits of the Coventry and Warwick area.

2.22 The Precambrian and Ordovician igneous rocks which outcrop around Nuneaton up to Mancetter in North Warwickshire are a vital source of high specification roadstone and aggregates which supply the main road networks of the West Midlands and neighbouring regions.

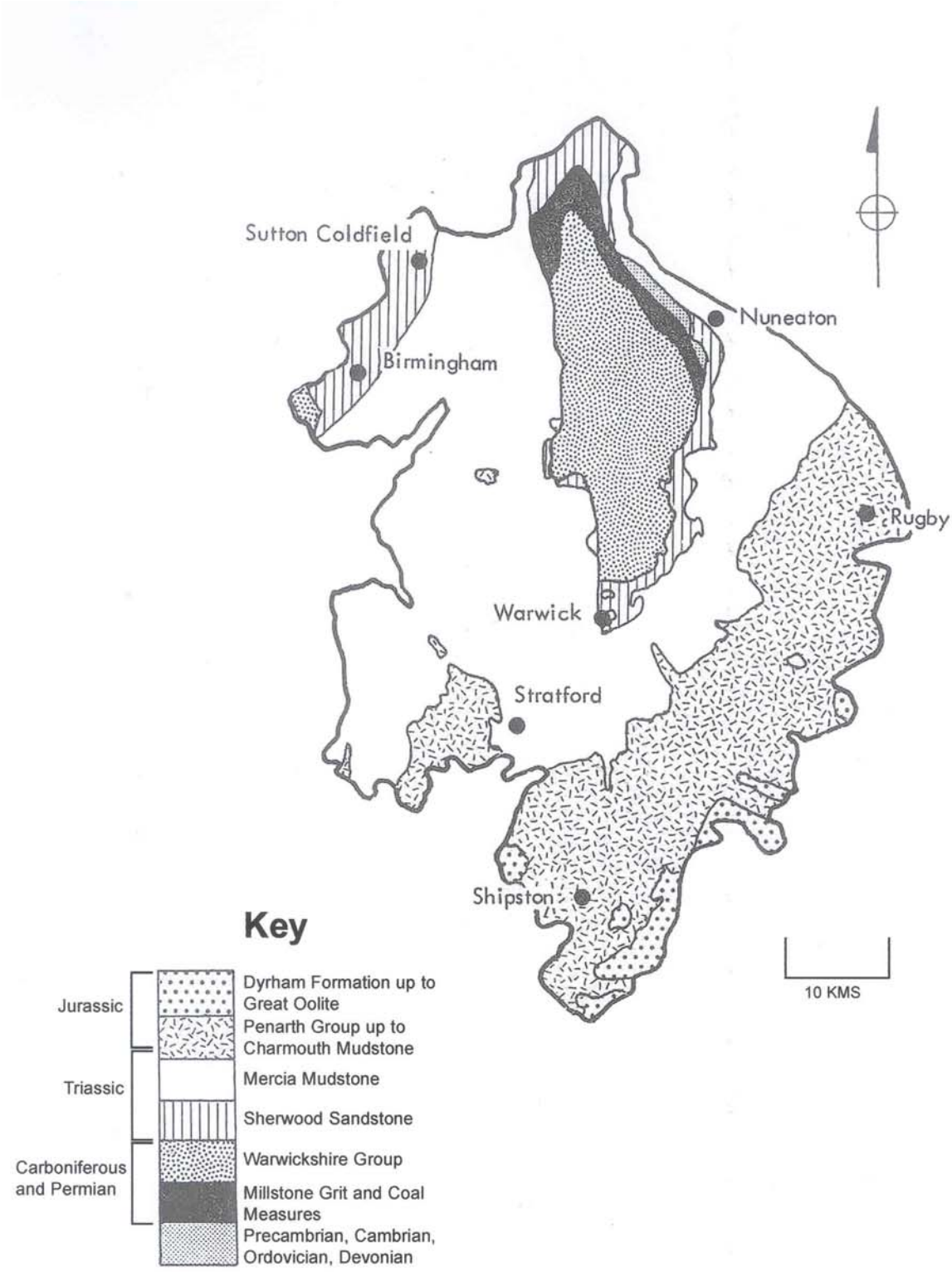
Geology of Warwickshire.

2.23 The following map contains information on the solid geology of Warwickshire, Coventry, Birmingham and Solihull. This map shows the outcrop of the various rocks in Warwickshire but does not include the more recent glacial and fluvial deposits which would contain the sand and gravel resources in the county.

2.24 Sand and Gravel is widespread around the county but can be generally be located in river terrace deposits along the floors of major river valleys such as the Tame and the Avon. Glacial deposits of sand and gravel again widespread but are mainly centred around Dunchurch and Wolston, Coleshill and interspersed along the A5 from Hilmorton to Wolvey.

2.25 The basic details of the map are described below.

Jurassic:	**Dyrham Formation** incorporates the **Ironstone** which is still used as a building stone. **Penarth Group** includes the **Lias** formations which are used in the production of cement (currently extracted at Southam and Rugby)
Triassic:	**Mercia Mudstone** contains the Arden Sandstone which has been used in local buildings. **Sherwood Sandstone** Or **Bromsgrove Sandstone,** which has been a popular building material around Warwick and the wider West Midlands.
Carboniferous/Permian:	**Warwickshire Group** These include the **Red Sandstones** used at Kenilworth and Maxstoke Castle.
Coal Measures:	These rocks include the exposed section of the **Warwickshire Coalfield** and have previously been exploited by open cast and shallow mining.
Precambrian Cambrian and Ordovician:	These formations contain the ancient sandstones **(quartzites**) and **dolerites** which are the source of the high specification aggregates extracted around Nuneaton (Griff, Midland, Jees and Boon) and Judkins) and Mancetter. Only Griff and Mancetter quarries are currently in operation but large permitted reserves still exist at Jees and Boon quarry in Nuneaton.



Key Map 3: Geology Map of the Warwickshire, Coventry and Solihull Sub-Region.

Reproduced with permission from Warwickshire County Council Museum,

3. Policy Context

3.1 In the production of the Preferred Options report Warwickshire County Council has to show regard for a wide range of policies at the international, national, regional and local level. This section contains a summary of these policies.

Sustainable Development

3.2 Since the early 1990's as a result of the Rio Earth Summit, the Government has a commitment to ensure that sustainable development is at the forefront of planning policy. A number of sustainable development strategies have been published. The aim of this approach is to integrate the Government's sustainable development policies that are:

- Social progress that recognises the needs of everyone;
- Effective protection of the environment;
- Prudent use of natural resources; and
- Maintenance of high and stable levels of economic growth and employment.

("A Better Quality of Life – strategy for sustainable development for the United Kingdom" – 1999, UK Government Publication).

3.3 The most recent strategy published is entitled "Securing the Future: Delivering UK Sustainable Development Strategy" (March 2005) that seeks to deliver sustainable development. The strategy identifies four priorities for action:

- Sustainable Communities;
- Sustainable Consumption and Production;
- Natural Resource Protection; and
- Climate Change.

European Union Legislation

Strategic Environmental Assessment

3.4 The EU Directive on Strategic Environmental Assessment 2001/42/EC requires the assessment of the effects if certain plans and polices in the UK but does not apply to National Policies.

Environmental Impact Assessment

3.5 The EU Directive on Environmental Impact Assessment 85/33/EC (as amended by EU Directives 97/11/EC and 2003/35/EC) now requires the submission of an Environmental Impact Assessment for a whole series of specificed large scale planning applications.

EU Mines Waste Directive – (Adoption estimated 2007)

3.6 This legislation brought has been passed in order to prevent and reduce adverse impacts brought about by the management of waste from the extractive industries.

Access to Information – EU Directive on Public Access to Information 2003/4/EC

3.7 This Directive forms the basis of the **Freedom of Information Act** in UK law setting out a statutory right of access to information held by public authorities and other listed bodies.

Convention on Wetlands of International Importance – The Ramsar Convention on Waterfowl Habitats

3.8 A multi-governmental treaty that aims to stop the loss of wetlands and waterfowl habitats of international importance from other forms of development which would degrade or destroy them.

Bern Convention on the Conservation of European Wildlife and Natural Habitats 1979.

3.9 This convention protects over 500 wild plant species and over 1,000 wild animal species. It has been instrumental for the EC Habitats Directive and Wild Birds Directive and forms the basis of the UK's nature conservation legislation, the Wildlife and Countryside Act 1981 (as amended).

The EC Habitats Directive - The Conservation of Natural Habitats and Wild Fauna and Flora 92/43/EEC

3.10 Natura 2000 is the European Union Wide network of nature conservation sites established under this Directive. Natura 2000 will comprise of Special Areas of Conservation (SAC's) designated under the Directive and Special Protection Areas (SPA's) classified under the Council Directive on the Conservation of wild birds (79/409/EEC) – The Wild Birds Directive.

Groundwater Directive 80/68/EEC

3.11 The Directive has the aim of protecting groundwater from pollution.

Water Framework Directive 2000/60/EC

3.12 This Directive introduces the system of the management of the water environment based on river catchment areas and is currently the responsibility of the Environment Agency in the UK. It also introduces measures to improve overall water quality.

Air Quality Framework Directive 96/62/EC and Related Daughter Directives

3.13 Relates to air quality assessment and management and further expanded to include 'daughter' directives

- **1999/30/EC** limiting nitrogen oxide, sulphur dioxide, lead and PM10 particulate.
- **2000/69/EC** limiting values of benzene and carbon monoxide
- **2002/3/EC** setting long term target values for ozone in ambient air by 2010.

The Integrated Pollution and Control Directive 96/6/EC (IPPC)

3.14 The IPPC Directive is designed to prevent, reduce and eliminate pollution at its source through the efficient use of natural resources and achieve environmental sustainability within industry.

The Waste Framework Directive 75/442/EEC (as amended)

3.15 This Directive provides a basis for waste management practises and introduced the now common principles of the Polluter Pays, Proximity Principal, Self-Sufficiency and Waste Hierarchy.

The Landfill Directive 1999/31/EC

3.16 This Directive provided the driver for the diversion of waste from landfill and banned certain materials such as tyres from disposal in landfills. The Landfill Tax has further moved waste away from landfill which has resulted in problems for some mineral extraction restoration schemes.

UK Policies and Legislation

The Energy Review

3.17 The UK Government's White Paper "*Our Energy Future – Creating a Low Carbon Economy"* published in 2003 set out the government's energy strategy. However, the following recent developments summarised below have prompted the government to review this strategy:

- Evidence about the adverse impact of climate change has continued to grow;
- Fossil fuel prices have risen sharply;
- The UK has become a net gas importer sooner than expected
- Progress in introducing truly open energy markets in the EU has been slow over the last three years;
- There has been a general heightening of sensitivity around global energy issues affecting security of supply and price volatility.

3.18 The consultation document ***"Our Energy Challenge – Securing clean, affordable energy for the long term"*** was published in January 2006 and the findings have recently been published.

The report on the Energy Review sets out a programme of action to make further progress towards achieving the following two main objectives –

- The need to tackle climate change by reducing carbon dioxide emissions; and
- The need to deliver secure, clean energy at affordable prices, as we move to increasing dependence on imported energy

The Planning System

3.19 The Planning and Compulsory Purchase Act came into force in September 2004 and as a result the planning system has undergone a number of major changes. Planning Authorities now have to follow a spatial planning approach rather than traditional landuse planning. Spatial planning aims to bring together and integrate planning policies and all other inter-related policies and programmes, especially social and economic ones.

Planning Policy Statements

3.20 Planning Policy Statements (PPSs) are gradually replacing Planning Policy Guidance Notes (PPGs). PPSs and PPGs set out the Government's national policies on different aspects of planning. This guidance sets the framework for other national planning policies and should be read in conjunction with other statements of national planning policy. PPSs can be viewed on the following website: www.communities.gov.uk

Due to the particular issues related to the winning and working of minerals within the land use planning system a series of Minerals Policy Guidance notes (MPG's) provide specific guidance on minerals. These are now being replaced by Mineral Policy Statements (MPS's).

Planning Policy Statement 1: Delivering Sustainable Development (PPS1)

3.21 The principles of sustainable development have been translated through the publication of PPS1. (www.communities.gov.uk/planning) This states that the planning system is required to facilitate to promote sustainable and inclusive patterns of urban and rural development by:

- Making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life
- Contributing to sustainable economic development.
- Protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities.

- Ensuring high quality development through good and inclusive design, and the efficient use of resources; and,
- Ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all members of the community.

Planning Policy Statement 7: Sustainable Development in Rural Areas (PPS7)

3.22 PPS7 outlines the Governments objectives for rural areas which are:

- To raise the quality of life and the environment in rural areas,
- To promote more sustainable patterns of development
- Promoting the development of the English regions by improving their economic performance.
- To promote sustainable, diverse and adaptable agricultural sectors.

Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9)

3.23 PPS9 sets the following key principles which both Regional Planning Bodies and Local Planning Authorities should adhere too in order to ensure that the potential impacts of planning decisions on biodiversity and geological conservation are fully considered.

- Development Plans and Polices should be based on up to date information about the environmental characteristics of their area. These characteristics should include the relevant biodiversity and geological resources of the area. Local authorities should assess the potential to sustain and enhance all environmental characteristics where possible.
- Plan policies and planning decisions should aim to maintain, enhance, restore or add to biodiversity and geological conservation interests.
- Plan policies on the form and location of development should take a strategic approach to the conservation, enhancement and restoration of biodiversity and geology, and recognise the contribution that sites, areas and features, both individually and in combination, make to conserving these resources.
- Plan policies should promote opportunities for the incorporation of beneficial biodiversity and geological conservation features within the design of development.
- Development proposals where the principal objective is to conserve or enhance biodiversity or geological conservation should be permitted.
- The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Local Planning authorities need to be satisfied that any development which causes significant harm to such interests could not have been reasonably located on alternative sites. Local Planning Authorities should also ensure appropriate mitigation or compensation measures are in place where significant harm is inevitable.

3.24 Accompanying PPS12 is a Good Practice Guide, "*Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System".* This circular (06/2005) provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

Planning Policy Statement 10: Planning for Sustainable Waste Management (PPS10)

3.25 PSS10 sets out the Governments policies on waste. The overall objectives in PSS10 are to:

- Move waste up the waste hierarchy by focusing firstly on waste reduction, reuse, recycling and composting, then recovering energy from waste and finally resorting to landfill disposal only in the last instance

- To protect the environment by producing less waste
- To protect human health
- Use waste as a resource where possible
- Encourage significant new investment in waste management facilities.

Construction and Demolition Waste and alternative aggregates are classified by the Environment Agency as waste but its use in the construction industry can reduce the need for primary mineral extraction.

Planning Policy Statement 12: Local Development Frameworks (PPS12)

3.26 PPS12 sets out the Government's policy on the preparation of Local Development Frameworks. In its companion guide (Creating Local Development Frameworks, 2004) it encourages county councils to ensure consistency between minerals and waste development frameworks, regional spatial strategies and district council's core strategy proposals.

Planning Policy Statement 22: Renewable energy (Includes the companion guide) (PPS22)

3.27 PPS22 sets out the Government's policies for renewable energy, which planning authorities should have regard to when preparing local development documents and when taking planning decisions. Published August 2004.

Planning Policy Statement 23: Planning and Pollution Control (PPS23)

3.28 PPS23 is intended to complement the new pollution control framework under the Pollution Prevention and Control Act 1999 and the PPC Regulations 2000. Published November 2004. This replaces PPG Note 23: Planning and Pollution Control published 1994.

Planning Policy Statement 25: Development and Flood Risk

3.29 Planning Policy Statement 25 (PPS25) sets out Government policy on development and flood risk. It's aims are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe, without increasing flood risk elsewhere, and, where possible, reducing flood risk overall. This replaces Planning Policy Guidance Note 25: Development and Flood Risk (PPG25), published July 2001.

Planning Policy Guidance Notes (PPGs)

Planning Policy Guidance 2: Green Belts (PPG2)

3.30 There are five purposes of including land in Green Belts:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns from merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns;
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

3.31 The extraction of minerals is a temporary land use and need not be considered inappropriate development within the Green Belt. It need not conflict with the purposes of including land in Green Belts providing that high environmental standards are maintained and that sites are well restored to afteruses consistent with Green Belt Objectives.

Planning Policy Guidance 15: Planning and the historic environment

3.32 This PPG provides a full statement of Government policies for the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. It explains the role played by the planning system in their protection. It complements the guidance on archaeology and planning given in *PPG 16*: Archeology and Planning.

Planning Policy Guidance 16: Archaeology and Planning

3.33 This guidance is for planning authorities in England, property owners, developers, archaeologists, amenity societies and the general public. It sets out the Secretary of State's policy on archaeological remains on land, and how they should be preserved or recorded both in an urban setting and in the countryside. It gives advice on the handling of archaeological remains and discoveries under the development plan and control systems, including the weight to be given to them in planning decisions and the use of planning conditions

Mineral Policy Statements (MPSs)

Mineral Policy Statement 1: Planning and Minerals, with associated Good Practice Guide, (MPS1)

3.34 Recently published MPS1 sets out the core policies and principles for minerals planning in England. MPS1 replaces Mineral Planning Guidance 1and Mineral Planning Guidance 6 “Guidelines for Aggregate Provision in England” Its main objectives for minerals planning are in line with the Governments overall aims for sustainable development.

These key policy messages are:

- To ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction;
- To conserve mineral resources through appropriate domestic provision and timing of supply;
- To safeguard mineral resources as far as possible;
- To Prevent or minimise production of mineral waste;
- To secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- To protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in exceptional circumstances;
- To secure adequate and steady supplies of minerals needed by society and the economy within the limits set out by the environment, assessed through sustainability appraisal, without irreversible damage;
- To maximise the benefits and minimise the impacts of mineral operations over their full life cycle;
- To promote the sustainable transport of minerals by rail, sea or inland waterways;
- To protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long term potential of land for a wide range of after-uses;
- To secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection and legislation; and
- To encourage the use of high quality materials for the purposes for which they are most suitable.

Annexes to Minerals Policy Statement 1

3.35 MPS1 has four annexes which focus on matters specific to four sectors of the minerals industry:

Annex 1: Aggregates provision

Annex 2: Brick clay provision

Annex 3: Natural building and roofing stone provision, and

Annex 4: On-shore oil and gas and underground storage of natural gas

The annexes have equal status to, and should be read in the context of, core policy of MPS1.

MPS1 Good Practice Guidance

3.36 The Draft Guidance gives advice to Mineral Planning Authorities, the minerals industry and interested parties about how the policies in MPS1 might be implemented.

Minerals Policy Statement 2: Controlling and mitigating the environmental effects of mineral extraction in England. (MPS2)

3.37 Minerals Policy Statement 2 sets out the policies and considerations in relation to the environmental effects of mineral extraction that the Government expects Mineral Planning Authorities in England to follow when preparing development plans and in considering applications for minerals developments.

3.38 Details on the specific environmental effects are to be provided in Annexes to this Statement. Annexes 1 and 2 on *Dust* and *Noise* respectively, are published with this MPS.

A further annex or Mineral Planning Statement on mineral wastes is likely to be needed to take into account the requirements of the EU Mine Waste Directive when it is implemented.

Minerals Policy Guidance

Minerals Planning Guidance 2: Applications, permissions and conditions (MPG2)

3.39 MPG2 sets out the Government's policies on minerals and planning issues and provides advice on the operation of the development plan system with regard to minerals. This guidance note provides advice on those aspects of the development control system of particular relevance to minerals and on the preparation and determination of individual planning applications.

Minerals Planning Guidance 3: Coal Mining and Colliery Spoil (MPG3)

3.40 MPG3 provides a policy framework for Mineral Planning Authorities (MPAs) and the coal industry in England to ensure that the extraction of coal and disposal of colliery spoil only takes place at the best balance of community, social, environmental and economic interests, consistent with the principles of sustainable development.

3.41 The guidance makes it clear that with any planning application it is the role of MPAs to determine the acceptability of individual projects in accordance with the principles of the land use planning system having regard to all relevant policies and all other material considerations. Individual operators should determine levels of output in response to market conditions.

Minerals Planning Guidance 7: The Reclamation of Minerals Workings (MPG7)

3.42 MPG7 deals with policies, consultations and conditions which are relevant to achieving the effective reclamation of mineral workings.

Minerals Planning Guidance 10: Provision of raw material for the cement industry. (MPG10)

3.43 These guidelines provide advice to Mineral Planning Authorities (MPAs) on the exercise of planning control over the provision of raw material for the cement industry. They indicate the national policy considerations which need to be taken into account in drawing up minerals policies for the industry in their development plans and some of the other factors that need to be taken into account when determining applications for planning permission.

3.44 The Government places great importance on reducing the level of imports of building and construction material, and wishes to encourage domestic production to counter the rising import trend and to provide employment. The Government would also not wish to discourage any export opportunities that might arise. Therefore it is for mineral planning authorities to make provision for adequate supplies of raw material for the industry as it endeavours to meet future domestic demand. However, at the same time the Government recognises that cement production and the quarrying of raw materials for the industry can have a significant environmental impact and often takes place in areas of attractive and outstanding countryside.

3.45 The aims of these Guidelines are to advise MPAs about trends in cement production and consumption, and to provide a national planning context for the cement industry. They:

- Briefly outline national trends in cement production and consumption.
- Set out the national planning policy context for the cement industry.
- Outline the specific environmental impacts of the cement industry.
- Identify a policy for the maintenance of adequate permitted reserves of raw materials for the cement industry.
- Establish policies for the working, restoration, aftercare and after-use of the cement industry's quarry sites.

Minerals Planning Guidance 14: Review of Mineral Planning Permissions (MPG14)

3.46 The Environment Act 1995 introduces new requirements for an initial review and updating of old mineral planning permissions and the periodic review of all mineral permissions thereafter.

Aggregate Provision in England 2001 – 2016 (Published 2003)

3.47 The Department for Communities and Local Government publishes National and Regional Guidelines for the provision of aggregates in England. The current guidelines were produced in 2003 with the publication of "*National and Regional Guidelines for Aggregate Provision in England 2001 – 2016".* These guidelines seek to ensure that there is a sufficient supply of aggregates into the UK economy with no geographical imbalances. Regional guidelines for the West Midlands on production figures are apportioned to the individual Mineral Planning Authorities on the technical advice from the Regional Aggregates Working Party (WMRAWP).

3.48 The current national guidelines for the provision of aggregates agreed in 2003 state that an estimated 359million tonnes (mt) of aggregate materials will be required to be provided for in the West Midlands Region during the period 2001–2016. The guidelines assume that 88mt will be provided from alternative aggregate sources and 16mt will be imported from Wales. Thus the West Midlands will need to provide for 255mt of primary aggregate. 162mt of this is anticipated to be sand and gravel and 93mt crushed rock. MPAs in the region are expected to make the necessary provision in their development plans.

3.49 In ensuring the supply of 162mt of sand and gravel for the 16 year period (2001-2016) the total has been divided into an annual apportionment for each Mineral Planning Authority which has sand and gravel production. These apportionments are

outlined in figure Table 2 in the section dealing with the issue of sand and gravel and crushed rock production.

Table 2: Annual Apportionment of Sand & Gravel (RAWP Figures)

	Apportionment of Regional Guidelines	Annual Provision
Herefordshire	162mt x 2.8% ÷ 16 (years)*	0.283 mt
Worcestershire	162mt x 8.6% ÷ 16 (years)	0.871 mt
Shropshire	162mt x 8.1% ÷ 16 (years)	0.820 mt
Staffordshire	162mt x 65.2% ÷ 16 (years)	6.602 mt
Warwickshire	162mt x 10.3% ÷ 16 (years)	1.043 mt
W. Midlands County	162mt x 5% ÷ 16 (years)	0.506 mt
Regional Total		**10.125mt**

*(The 16 years refers to the period covered with the **"National and Regional Guidelines for Aggregate Provision in England 2001 – 2016"** document)*

3.50 The apportionment of crushed rock between the producing Mineral Planning Authorities is outlined in Table 3 and covers the 16 years covered by the guidelines. The West Midlands County has one quarry currently producing crushed rock but reserves are almost exhausted. When production has finally ceased from this quarry its contribution to regional production will be shared between Warwickshire and Shropshire which is reflected in the apportionments for these counties, shown as the additional 0.2875mt.

Table 3: Annual Apportionment of Crushed Rock After Production Ceases in West Midlands County.

	Apportionment of Regional Guidelines	Annual Provision
Herefordshire	93mt x 7.3% ÷ 16 (Years)*	0.424 mt
Worcestershire	93mt x 2.8% ÷ 16 (Years)	0.163 mt
Shropshire	93mt x 45.8% ÷ 16 (Years) + 0.2875 mt	2.949 mt
Staffordshire	93mt x 24.2% ÷ 16 (Years)	1.395 mt
Warwickshire	93mt x 10.2% ÷ 16 (Years) + 0.2875 mt	0.88 mt
W. Midlands County	No apportionment	0
Regional Total		**5.812mt**

** (The 16 years refers to the period covered with the **"National and Regional Guidelines for Aggregate Provision in England 2001 – 2016"** document)*

West Midlands Regional Aggregates Working Party

3.51 The West Midlands Regional Aggregates Working Party (WMRAWP) is a technical working group established in the 1970's along with nine other similar working groups covering the other regions of England and Wales. The group plays a major role in data collection, collation and monitoring of aggregate production and sales in the West Midlands and provides advice on how the Region can meet the National Guidelines for aggregates.

3.52 The WMRAWP draws its members from the MPAs in the region together with representatives from the minerals industry (through its trade associations with the Quarry Products Association (QPA) and the British Aggregates Association (BAA)),

the Department of Communities and Local Government (DCLG), the National Feberation of Demolition Contractors (NFDC), the Department of the Environment, Food and Rural Affairs (DEFRA) and the Government Officer of the West Midlands (GOWM).

Minerals Policies in the West Midlands Regional Spatial Strategy (June 2004)

3.53 The Regional Spatial Strategy for the West Midlands (RSS 11) replaces the former Regional Planning Guidance (RPG11). Under the Planning and Compulsory Purchase Act the RSS now forms part of the development plan. The RSS contains the following four policies on minerals,

M1 Mineral Working for Non-Energy Minerals

M2 Minerals – Aggregates

M3 Minerals – The Use of Alternative Sources of Materials

M4 Energy Minerals

All Minerals Development Frameworks are now required to be in general conformity with the RSS and contribute to achieving its targets.

Warwickshire Structure Plan 1996 - 2011

3.54 The Warwickshire Structure Plan (WASP) was adopted in August 2001. The WASP is the strategic land use plan for Warwickshire and forms part of the statutory development plan. Under the Planning and Compulsory Purchase Act the WASP is saved for a period of 3 years until September 2007.

Minerals Local Plan for Warwickshire

3.55 The Minerals Local Plan for Warwickshire adopted in 1995 contains the polices which are used to assess all mineral development proposals and activities in the county. The document identifies those areas of the County where significant resources of sand, gravel, hard rock and coal exist and where there are likely to be least adverse environmental impacts to their possible working.

3.56 The plan proposes general policies on the working of all minerals and allocates sites for future sand and gravel extraction. However, there are no site allocations for any other types of minerals within the county. Several of the issues in this paper consider whether the Minerals Development Framework should seek to allocate sites for other minerals found in the county.

3.57 The current Minerals Local Plan for Warwickshire identifies specific Areas of Search and Preferred Areas which are shown on proposal maps. Preferred Areas are sites where specific information has been available to suggest that economically viable reserves exist. In Areas of Search, operators are encouraged to undertake exploration to identify the reserve potential of that site. Both classifications have evolved from the examination of planning and environment constraints set against their mineral potential so designation of these areas confers a general presumption in favour of proposals for extraction within them.

3.58 Allocated sites for mineral extraction will be contained in the Mineral Allocations Development Plan Document. The process of early stakeholder engagement for this document is scheduled to begin in December 2007.

The Minerals and Waste Development Scheme

3.59 The Minerals and Waste Development Scheme (MWDS) sets out the timetable for the production of the various elements of the Minerals Development Framework which will replace the existing Minerals Local Plan for Warwickshire. This includes the various stages of production of the Minerals Core Strategy.

Statement of Community Involvement

3.60 The County Councils Statement of Community Involvement (SCI) specifies how and when all interested parties will be involved in the development plan making process for both the Minerals and Waste Development Frameworks.

The Local Transport Plan for Warwickshire (2006)

3.61 The second Local Transport Plan (LTP) for Warwickshire provides details of how the County Council and its partners will seek to improve transport and accessibility over the next 5 years. The LTP has been based around the following objectives;

- To improve accessibility to the transport system in order to promote a fairer, more inclusive society.
- To seek a transport system which will promote full employment and a strong, sustainable local and sub-regional economy.
- To reduce the impact of transport on the environment.
- To improve the environment and safety of people when they are using the transport system.
- To encourage the integration of transport, both in terms of policy planning and the physical interchange of modes.

The Warwickshire Strategic Partnership Plan 2005 – 2008

3.62 The Warwickshire Strategic Partnership Plan focuses on those issues where partnership will have the greatest impact. At a district level Community Plans have been developed through public consultation to ensure local issues are improved through partnership activity. At the same time the five local community plans, recognise and support the Strategic Partnership Plan in their own development. The plan aims to achieve the following:

- Good quality housing available at an affordable price;
- A safe and harm free environment for all those who live, work and visit Warwickshire;
- A natural environment, climate and resources that support and enhance life for future generations;
- Sustainable economic growth, where jobs are created and retained; and residents are equipped with appropriate skills and competencies;
- The best possible health and well-being for all.

The District and Borough Local Plans

3.63 There are five District and Borough Councils within Warwickshire and each has to produce a Local Plan for their area. Each mineral planning application submitted to the County Council needs to take account of any relevant planning policy in the District or Borough Local Plan. Under the new planning system the District and Borough Councils will still be producing Local Plans under transitional arrangements and then the Councils will start to replace them with Local Development Frameworks.

Community Strategies

3.64 Under the Local Government Act part 1 there is a duty on local authorities to prepare Community Strategies for promoting or improving the economic social and environmental well being of their areas. Community Strategies should promote sustainability both locally and nationally. They have been prepared by District Councils following extensive consultation with stakeholders, community and voluntary groups and public and private organizations. The County Council has also prepared a Strategic Plan which supports the District plans and focuses on things which can be

best implemented at county level. Local strategic Partnerships, comprising the district councils and these groups/ organizations, implement the Community Strategy. WCC as part of the consultation has consulted these organizations and taken account any comments received. WCC has also had regard to each community strategy in the preparation of the Issues and Options and the Preferred Options papers.

4 RESPONSIBILITIES FOR MINERALS PLANNING

Warwickshire County Council – Planning Authority

4.1 Warwickshire County Council is the Mineral and Waste Planning Authority for the County. The County Council has a statutory duty to deal with planning applications involving mineral extraction and the depositing, recycling and management of waste. Applications which cannot be determined under the delegated powers of the Strategic Director of the Economy and Environment Directorate go before the elected members of the Regulatory Committee.

4.2 Warwickshire County Council as the Minerals and Waste Planning Authority also have a statutory duty to produce both the Waste and Minerals Development Frameworks.

West Midlands Regional Assembly (WMRA)

4.3 Under the Planning and Compulsory Purchase Act 2004, it is the role of the West Midlands Regional Assembly (WMRA) as Regional Planning Body (RPB) to provide an opinion as to whether, District, Borough and County Local Development Frameworks are broadly in 'general conformity' with the Regional Spatial Strategy (RSS). In addition, the Assembly is a statutory consultee with regard to regionally significant planning applications.

4.4 The Assembly has adopted a decentralised approach to carrying out the role's identified above, and as such all strategic planning authorities in the West Midlands Region provide strategic advice to the RPB in relation to all Local Development Frameworks (including Minerals and Waste) and regionally significant applications.

4.5 Once a regionally significant application or relevant Local Development Document (LDD) has been received by the Assembly, Regional Conformity Advisors (RCA) will carry out an assessment which takes into account any views received from other Assembly partners, and provide advice to the RPB. However, it is the Assembly that issues the opinion as to the general conformity of the application or LDD.

4.6 An opinion of conformity in relation to an LDD will be considered as a representation by the Planning Inspectorate in an independent examination or public enquiry. An opinion issued in relation to a regionally significant planning application will be given due consideration by the Local Planning Authority in determining the planning application.

The Environment Agency

4.7 The Environment Agency was established in the 1995 Environment Act. It is a Non-Departmental Public Body of the Department of Environment, Food and Rural Affairs. The Agency's principal aim is to protect and enhance the environment of England and Wales and its functions include Water Quality and Resources, Integrated Pollution Prevention and Control, Waste Management and Flood Risk Management.

4.8 The Environment Agency is a key advisor to Central Government, Local Government, developers and landowners regarding issues relating to planning and the environment. The main functions of the Environment Agency within the planning system are to:

- Advise on the formulation of national planning policy and technical guidance;
- Provide environmental information to help inform policy;
- Contribute to development plans and their Sustainability Appraisals (and Strategic Environmental Assessment);
- Provide timely and useful responses to consultations on planning applications and pre-application enquiries;
- Advise on the environmental implications of spatial planning on other environmental plans and strategies;
- Work closely with stakeholders to develop new approaches to positive planning.

4.9 The Environment Agency will be consulted and involved throughout the Minerals Development Framework process as well as being statutory consultees on specific mineral allocations and proposals.

5 CONSULTATION PROCESS

Preliminary Consultation

5.1 The preliminary consultation on the Minerals Development Framework (MDF) Core Strategy was carried out between 20th February and 3rd April 2006. A preliminary questionnaire was sent to those contacts held on the County's mailing lists and all County and District Councillors were informed of the consultation.

5.2 The questionnaire was made available on our website and there was the facility to respond to the consultation online. Questionnaires were also made available in County Council receptions and Local Council offices and County libraries. There were promotional displays in Shipston, Rugby, Atherstone, Nuneaton, Southam, Bidford and Warwick libraries at various stages throughout the consultation period.

5.3 In addition to this there were 7 awareness raising roadshows, in Dunchurch, Middleton, Leamington Spa, Shipston, Nuneaton, Southam and Bidford. As well as raising awareness of the MDF these roadshows also aimed to outline the key issues relating to minerals extraction within the county.

5.4 Through the consultation process a strategic forum group has been developed and has met on three occasions. A supporting Saturday consultation workshop was also held for those interested parties who were unable to attend the weekday forum events.

5.5 69 written responses to the preliminary consultation were received. Both these written and verbal comments made at the discussion groups have been considered in the preparation of this report.

Issues and Options Consultation

5.6 Warwickshire County Council consulted on the Issues and Options between the 28th July and the 8th September 2006 which built on the Preliminary Consultation and formed part of the first level of the required statutory consultation in line with the 2004 Planning Act.

5.7 A total of 82 responses were received and these have been studied and summarised in Appendix A of this document.

5.8 The paper and the accompanying questionnaire was sent out to over 1000 listed consultees with copies held at all county libraries and district council offices. A version was also published on the Warwickshire County Council website and it was also possible to respond to the questionnaire online.

5.9 To support the consultation process Warwickshire County Council ran a series of 'drop in' sessions around the council where an officer was available to discuss or answer any questions with members of the public.

5.10 These dates were –

3rd August	Atherstone Library	1pm to 6pm
10th August	Nuneaton Library	1pm to 6pm
17th August	Rugby Library	2pm to 8pm
24th August	Southam Library	2pm to 7pm
30th August	Stratford Library	11am to 5.30pm
5th September	Bidford on Avon Library	2pm to 7pm

5.11 Two further events were held to engage operators, interested groups and members of the public at Manor Hall, Leamington Spa.

A Minerals Forum was held on the 11th of August and was well attended by industry representatives and other stakeholder groups.

A Mineral Workshop was held on the morning of 2nd September which, being on a Saturday was attended by members of the public and community groups.

The Issues and Options consultation responses have been studied along with all the recorded comments from the Forum and Workshop discussions and assessed. This feedback has been used in conjunction with the knowledge and experience of the County Council's planning and other professional staff to decide on the most appropriate Option, or combination of options which were suggested for each issue. It should also be noted that government policy guidance and new information related to each of the key issues has also been used in the selection process. The consultation responses and Warwickshire County Councils comments have been summarised and reported on the counties website.

5.12 This document has summarised the selected preferred option and the reasoning behind the decision. Policy Principles have also been formulated for comment based on the preferred option and will be used for further define actual policies at the submission stage in June.

6 KEY OBJECTIVES FOR THE MINERALS DEVELOPMENT FRAMEWORK

Introduction

General Principles of Mineral Planning

6.1 It is the role of the planning system to secure the most efficient and effective use of land in the public interest and to attempt to balance the competing demand for development against environmental protection and other considerations.

6.2 Minerals Planning aims to provide a framework for meeting the nations need for minerals in the most sustainable way and involves balancing social, environmental and economic concerns. The key aspects of minerals planning are summarised below.

Minerals can only be worked where they occur

6.3 Unlike most other forms of development such as housing, roads and schools the locational options for the siting of mineral extraction sites are limited as they are dependant on the geology of an area.

Mineral Working is a temporary landuse

6.4 All activity on a mineral site will eventually finish with a requirement for the site to be restored. The extraction phase for any site can last from a few years to over 50 depending on the nature of the mineral being worked. The restoration of mineral sites once extraction has ceased is essential and mineral planning ensures that all operations comply to an approved final restoration scheme.

Planning for the Supply of Minerals

6.5 Minerals are essential to the continuing economic development of the UK. They are used in the construction, manufacturing, energy production and agricultural sectors with a continuous and secure supply of the required minerals being important. It is the role of the planning system to help deliver this supply and promote the most effective and efficient use of these natural and finite resources.

Key Objectives for Mineral Planning

6.6 The Government's objectives for mineral planning (as required in Section 39 of the Planning and Compulsory Purchase Act 2004 and listed in Mineral Planning Policy Statement 1) are :

- To conserve and safeguard mineral resources as far as possible;
- To protect nationally and internationally designated areas of landscape and sites of nature conservation value from minerals development, other than in exceptional circumstances where it has been demonstrated that the proposed development is in the public interest;
- To secure supplies of the material needed by society and the economy from environmentally acceptable sources;
- To ensure, so far as practicable, that outcomes for the minerals industry are consistent with the Government's aims for productivity growth and strong economic performance;
- To secure sound working practices so that environmental impacts of extraction and the transportation of minerals are kept to a minimum, unless there are exceptional overriding reasons to the contrary;
- To minimise the production of mineral waste;
- To promote efficient use and recycling of suitable materials, thereby minimising the net requirement for new primary extraction

- To protect, and where possible enhance the overall quality of the environment once extraction has ceased through high standards of restoration and to safeguard the long term potential of land for a wide range of afteruses.

6.7 The following section identifies the key objectives that will guide Warwickshire Minerals Development Framework. These objectives have been derived through a thorough, systematic review of the context for minerals activities within Warwickshire, and the challenges that lie ahead in applying sustainable solutions to providing for need. In order to gain consultee feedback, this section invites stakeholders to comment both on a strategic vision that has been developed for the Minerals Development Framework and key objectives that will guide its formulation.

Vision for the Minerals Development Framework

6.8 In order to guide the Minerals Development Framework, a vision has been proposed that encapsulates all aspects of minerals planning that the Framework seeks to deliver. We requested comments on the vision at the Issues and Options stage.

The Issues and Options Paper set out the vision for the Minerals Development Framework:

"To maintain and manage the long term supply of minerals extracted from Warwickshire which serve local and national needs whilst protecting and enhancing the environment and promoting long term community benefits"

We took account of the feedback comments from stakeholders and these could be summarised as being generally supportive of the vision. However, there was concern that more emphasis should be placed on "local" need rather than "national" need. In addition there were comments that "regional" need should be added. It was felt that the statement could be more positive in a number of areas including adding words such as "securing minerals" rather than just managing the supply; and promoting economic benefits while stressing the importance of environmental protection.

Following the consultation the Vision for the Minerals Development Framework has been amended to:

VISION

"To secure and manage the long term sustainable supply of both primary and secondary minerals serving local, regional and national needs whilst conserving and enhancing the environment and promoting long term community and economic benefits."

Consultation Question

Question 1:	Do you agree with the new vision statement?
Question 2:	What amendments, if any, would you make to the Minerals Development Framework vision?

Objectives for the Minerals Development Framework

6.10 The following key objectives were developed for the Minerals Development Framework as part of the Preliminary Consultation and Issues and Options.

These objectives were developed following a detailed review of relevant planning policies and through a consideration of the demand for minerals, the need to protect and enhance the environment and provide and economic and social benefits.

The Issues and Option Paper raised the following as Key Objectives

- To help deliver sustainable mineral extraction by promoting the prudent use and conservation of Warwickshire's natural resources.
- To maintain the supply of minerals required to support economic growth at the national, regional and local level.
- To protect the natural and historic environment and mitigate potential adverse effects associated with mineral developments.
- To have regard for the concerns and interests of local communities and protect them from unacceptable environmental effects resulting from mineral developments;
- To minimise the impact of the movement of bulk materials by road on local communities and where possible encourage the use of alternative modes of transport.
- To ensure mineral sites are restored to a high environmental standard once extraction has ceased.
- To promote the use of secondary and alternative materials which will reduce the overall demand for primary mineral extraction.

Following the consultation the Objectives have been amended to read:

1. To help deliver sustainable mineral ***development*** *by promoting the prudent use and* ***safeguarding*** *of Warwickshire's mineral* ***resources to help prevent sterilisation.***

2. To promote the use of secondary and alternative materials **to** reduce the overall demand for primary mineral extraction**.**

3. To ***secure*** *the supply of minerals required to support* ***sustainable*** *economic growth at the national,* ***regional*** *and local level.*

4. To ***conserve and enhance*** *the natural and historic environment and mitigate potential adverse effects associated with mineral developments.*

5. To have ***full*** *regard for the concerns and interests of local communities and protect them from unacceptable environmental effects resulting from mineral developments;*

6. To minimise the impact of the movement of bulk materials by road on local communities and where possible encourage the use of alternative modes of transport.

7. To ensure mineral sites are restored to a high ~~***environmental***~~ *standard once extraction has ceased.*

8. ***To promote the local use of extracted or recycled materials to aid local distinctiveness and reduce transportation.***

*9****. To take account of the impacts of climate change in planning for the future supply of minerals .***

6.11 **Reasoning**

There were numerous requests to alter parts of the individual bullet points although there were not many requests to add new objectives. In terms of additional objectives requested to be added – specific issues include geology, promoting rail and other sustainable forms of transport and more encouragement to recycle materials.

It is considered that recycled materials are now covered in new bullet point 2 and reflect the increased importance Government places on the issue and that alternative forms of transport should now be covered in new bullet point 6. Geological issues we consider to be covered under the natural and historic environment and should not be included under a separate bullet point. It was felt that we would have to include many more objectives if we looked too closely at specific issues at this stage. The sterilisation issue and safeguarding of minerals is extremely important should be included in the objectives and it has been possible to incorporate these in objective 1.

Consultation Question

Question 3:	Do you agree with the objectives as set out in the Preferred Options?
Question 4:	If no, what amendments would you make to the Objectives for the Minerals Development Framework?

Planning for the future supply of minerals

6.12 Demand for minerals is fundamentally linked to the current and future economic activity of the UK. In order to secure a constant supply of the minerals required to maintain economic growth the supply of certain minerals is regulated on national scale.

6.13 For Planning for the supply of aggregates there is the National Guidelines for predicted demand which seeks to actively manage supply through the RAWP apportionments. For cement and brick plants there is specific planning guidance for the importance of maintaining sufficient permitted reserves to serve these industrial instillations and provide security of supply for long maintenance and improvements. Therefore, for aggregates, cement and brickclays there is an added flexibility to adapt to changes in market demand. For other minerals market forces are the main direct driver with the Planning System balancing the need for a particular mineral against all other relevant considerations.

Recent Research

6.14 The "**National and Regional Guidelines for Aggregates Provision in England 2001-2016**, published 2003" which have been described previously in this paper, are accompanied by a commitment by DCLG to monitor annually the production of aggregates against the stated guidelines and report the results. The "***Third Monitoring Report*"** was published in September 2006 and examined recent trends for the demand and consumption of aggregates, and included recent trends in construction activity. The report concluded there was is no requirement to revise the existing guidelines but the situation will continue to be monitored in the light of the "Review of Housing Supply Final Report 2004", otherwise known as the Barker Review on Housing which suggests additional 70,000 to 120,000 houses will be needed to be built annually in the UK.

6.15 A recent publication "***An Appraisal Primary Aggregate Reserves in England***" produced by the British Geological Survey has identified that reserves of land won sand and gravel are declining and recommends that action needs to be taken to address this if long term supply is to be maintained. The South East is experiencing the largest decline in permitted reserves but all in all English regions there is a failure to replenish sales tonnages with new permissions. Increasing pressure from other land uses and finding new reserves with acceptable environmental impacts makes this situation difficult to resolve and the inability for some regions to replenish reserves may but pressure on other regions to find the shortfall.

Future Developments

6.16 The Minerals Development Framework for Warwickshire should look to plan for the current requirement and trend predictions but should also be robust enough should those predictions be amended in response to more rapid changes in demand.

6.17 Developments and events which may effect current demand for minerals in Warwickshire are highlighted as follows:

The Regional Spatial Strategy

6.18 The West Midlands Regional Spatial Strategy (WMRSS) is part of the statutory development plan and incorporates the Regional Transport Strategy. It provides a framework for all Local Development Frameworks and Local Transport Plans and aims to influence wider strategies plans and programs. The Regional Planning Body (RPB) is responsible for the development, implementation and monitoring of the WMRSS.

6.19 The RPB requested that section 4 (4) Strategic Planning Authorities respond to a brief and questions regarding different growth scenarios in the light of new government household projections, to enable the RPB to produce a Spatial Options paper. This will be produced in January 2007.

6.20 Warwickshire submitted its response in conjunction with Solihull, Coventry and the other Warwickshire Districts as a joint sub regional response under the (Coventry Solihull Warwickshire) CSW Forum. The group identified potential growth areas for the sub-region which would include a north/south growth corridor from Nuneaton to Warwick/ Leamington through Coventry and to adopt a sub-regional focus role for Rugby to absorb inward migration which would otherwise locate to Stratford and North Warwickshire which would take less growth. Rugby would also act as gateway location for growth arising from the South East region. The advice produced by CSW Forum has yet to be taken on board by the RPB.

6.21 In terms of minerals planning in the county that this means is that there is likely to be great demand for minerals in some parts of the county. Therefore the spatial dimension of future growth areas in the light of large housing household projection figures, has major implications for where quarries are best located. This must be considered when generating the Preferred Options

Growth Areas

6.22 The government has identified that the provision of new homes has failed to keep pace with the numbers of new households. The Sustainable Communities Plan (2003) highlighted this demand in the housing market and proposed certain measures to address this issue.

6.23 One of the proposals was the creation of four Growth Areas based in the South East. These Growth Areas are the:

- Thames Gateway
- London Stansted Cambridge Peterborough
- Ashford (Kent)
- Milton Keynes - South Midlands

Combined with London the aim of these areas is to sustainably provide 200,000 additional homes above previously planned levels. Current aggregate guidelines have taken this extra housing into consideration but the situation with regards to supply is being annually monitored. The expansion in Daventry and Northampton as part of the South Midlands Growth Area as with regards to mineral supply from Warwickshire and other surrounding areas is also being studied.

Additional to the Growth Areas the Government announced 45 new growth points which provides support for local districts and communities who wish to pursue large scale growth in housing and employment. Total Housing proposed by all the growth locations totals 425,000 homes between 2006-2016, representing an additional 100,000 (32%) on previous plans.

6.24 In the West Midlands the Birmingham and Solihull Councils will aim to build at least 40,000 homes with Coventry providing a further 9,000. The majority of housing will be encouraged to be build on brownfield land but some ‘greenfield’ sites may be taken in order to accommodate the required growth. The resource requirements of this additional housing may have direct implications for demand for mineral resources in Warwickshire. Adjacent growth points to the West Midlands may also cause changes in the national flow and demand of minerals may also put pressure on local minerals. Leicester, Derby and Nottingham are pushing for 81,500 houses which may take up a large proportion of Leicestershire’s mineral output which currently flows to other regions.

Large Infrastructure Projects

6.25 The demand for minerals across South East may increase with the construction of various major infrastructure projects. These include

- The Olympics
- London Crossrail Construction
- Heathrow Terminal 5

Other projects closer to Warwickshire will also have certain resource demands and implications for supply mechanisms. These would include the proposed 2nd Runway at Birmingham Airport and any major road building or widening schemes.

Climate Change

6.26 The implications of climate change and associated flooding of inland and coastal areas are still being assessed. The resource implications for any national flood defence strategy will be huge and cause an increase in the demand for minerals across the UK.

6.27 Energy Review

The Governments most recent Energy Review is summarised in section 3.6 and the implications could mean an increasing importance of indigenous coal supplies either for extraction or for situ energy recovery technologies. There is also the possibility the creation of natural gas storage facilities in old mineral workings to help secure supplies for periods of high demand.

Another outcome of the Energy Review is the very real possibility of the need to build new nuclear power stations which themselves require a large amount of extracted material to constructed. Additional to the power stations is the need to create a long term solution to the problem of the high level of nuclear waste from this type of energy production. The construction of a storage facility for the disposal of Nuclear Waste could take up a huge amount of construction material wherever it is sited in the UK.

Spatial Strategy

6.28 The Minerals Spatial Strategy focuses on the broad locations where new mineral extraction and developments will the County Council will seek to steer development. This strategy has been developed by applying the Vision and Key Principles of the Core Strategy to incorporate all relevant national guidance, existing minerals policies, current and predicted future demand for individual minerals and assessing all responses to the our consultations.

6.29 Planning for Mineral Extraction is determined by the over-riding principle that "Minerals can only be won where they are found", and so in forming an overarching spatial strategy there are immediate geographical limitations as to where sites for different minerals can be located. Apart from this unmoveable constraint there other locational factors which would influence the Minerals Core Strategy.

6.30 **The Overarching Spatial Strategy will seek to:**

Focus aggregate production in close proximity to the principal road and infrastructure networks to limit the impacts from the movement of bulk materials especially on rural communities. Development will be particularly encouraged to make use of existing railheads and canals where practicable.

6.31 Encourage the extension of all mineral workings where environmentally acceptable; these commonly have less environmental impacts than new operations. Extensions may also maximise the efficient use of the counties mineral wealth by avoiding sterilisation of reserves. In terms of sustainability this approach is preferable to developing new sites.

6.32 Seek to avoid Areas of Outstanding Natural Beauty, SSSI's and other designated areas as well as existing settlements and communities. Where there is a demonstrated need for the mineral development the impacts of extraction will be effectively mitigated.

The Spatial Strategy is graphically represented by the Key Diagrams and Geological Plan.

Consultation Question

Question 5:	Do you agree with the Spatial Strategy?
Question 6:	What amendments, if any, would you make to the Minerals Development Framework Spatial Strategy?

7. PREFERRED OPTIONS

7.1 This section outlines the Preferred Options that have been identified from the previous Minerals Development Framework "Issues and Options consultation. There is also Policy Principles which have been formulated alongside the Preferred Option for each Key Issue which is also part of this consultation.

7.2 A **Sustainability Appraisal (SA)** has been applied to each of the preferred options in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive (European Directive 2001/42/EC) and Planning and Compulsory Purchase Act 2004. Section 39 of the Act requires that a Sustainability Appraisal is a systematic and evaluative process and incorporates the requirements of the Strategic Environmental Assessment Directive. The SA tables are included after each option and part of this consultation.

7.3 As outlined in Planning Policy Statement 12 the purpose of the Sustainability Appraisal is to appraise the social, environmental and economic effects of strategies and policies in a Local Development that starts during the preparation process. The SA is a tool used in ensuring that decisions are made that meet the requirements of sustainable development.

7.4 The SA has been conducted for each of the preferred options and using criteria and a Sustainability Appraisal Framework captured with a Sustainability Appraisal Scoping Report produced in accordance with the SEA Directive.

NB For the Purpose of the SA work it has been assumed that the Short Term (ST) is (pre-development stage) roughly the time framework between plan production and the start of any development.

Medium Term (MT) would be the period of extraction and the Long Term (LT) is the timeframe when the when the development is complete and the site is undergoing restoration or has undergone restoration. It should be noted that sites will often only be partly restored while extraction is taking place.

*** The normal +/+ to -/- scoring system has been employed in the SA tables with U indicating an unknown impact.**

Key Issue 1: Criteria for Assessing Mineral Developments

7.5 The key issue of establishing what applications for mineral extraction or allocation in the plan should be assessed was the first Key Issues of the Issues and Options Consultation. All planning applications are judged against their impacts on the environment and how these impacts could be effectively mitigated.

The consultation asked:

How should the criteria of environmental and planning constraints for assessing areas for mineral development be established?

The following options were raised for selection and comment:

Option A: *Assessing sites on a selection criterion that conform to the requirements of applicable National, Regional and Local legislation and published good practice guidance where they have relevance to the working of minerals and the principles of sustainable development.*

Option B: *Assess sites through criteria that fully integrate all relevant planning policies, environmental constraints and additional considerations identified through the consultation process..*

Following the Issues and Options consultation the preferred option was B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option: B

Assess sites through criteria that fully integrate all relevant planning policies, environmental constraints and additional considerations identified through the consultation process.

7.6 **Reasoning**

All mineral applications will be considered against all the criteria identified in Policy Principle 1 which seeks to incorporate all National and Regional guidance and statutory obligations. It is clear from the consultation that communities are eager to highlight all relevant issues associated with all mineral development proposals which may have some impact on them. The Statement of Community Involvement (SCI) produced by Warwickshire County Council specifies how the council will consult in plan making and planning applications. By conforming to the SCI and considering any other possible stakeholder the consultation process will be sound and identify all relevant issues.

Policy Principle 1 : Criteria for assessing Mineral Developments

Proposals for all Mineral Developments and Site Allocations in the Minerals Development Framework will be considered on the basis of the demonstrated need and demand for the mineral, the provisions of the Development Plan and the likely impacts and the mitigation measures on the following criteria:

1) Local Communities
2) Sites of Designated International, National, Regional and Local Importance including:
    a. Sites of Special Scientific Interest
    b. Ancient Woodland
    c. Ramsar Sites
    d. Scheduled Ancient Monuments
    e. Sites and Monuments Record
    f. Historic Parks and Gardens
    g. National Trust Properties
    h. Conservation Areas
    i. The Cotswold Area of Outstanding Natural Beauty
    j. Special Landscape Areas
    k. Listed Buildings
    l. Sites of Importance for Nature Conservation
    m. Regional Importance Geological Sites
3) Sites of importance for Biodiversity, Archaeology and Geology
4) The Hydrological Environment
5) Flood Risk (Strategic Flood Risk Assessment)
6) Green Belt
7) Agricultural Land Quality
8) Transport Network
9) Historic Environment
10) The quality of the Environment regarding dust, noise, air quality and other effects of mineral operations.
11) Climate Change

All proposals will be subject to consultation to assess the opinions of local communities, interest groups and other stakeholders.

Consultation Question

Question 7:	Do you agree with the Preferred Option for Key Issue 1 - Criteria for Assessing Mineral Developments?
Question 8:	Do you agree with the Policy Principle established for Key Issue 1 - Criteria for Assessing Mineral Developments?
Question 9:	Do you agree with the Sustainability Appraisal undertaken for Preferred Option for Key Issue 1?

7.7 The Government launched a consultation paper on Planning and Climate Change in December 2006 and has also published PPS 25 "Development and Flood Risk". These documents are clear indication that the government accepts climate change is real and happening now and flooding events and periods of drought may be increasing over the coming decades.

7.8 PPS25 states that a risk based sequential test should be applied at all stages of planning with the aim of steering new development away from areas of high risk of flooding. The Flood Zones are the starting point for this approach and refer to the probability of sea and river flooding only, ignoring the presence of existing defences.

Zone 1: Low Probability
This zone comprises land assessed as having a less than 1 in 1000 annual probability of river flooding in any year.

Zone 2: Medium Probability
This zone comprises land assessed as having between a 1 in 100 and a 1 in 1000 probability of river flooding in any one year.

Zone 3: High Probability
This Zone comprises land assessed as having a 1 in 100 or greater probability of river flooding or comprises of areas of land where water has to flow or be stored in times of flood.

Zones 2 and 3 are shown on the Environment Agency Flood Maps with Flood Zone 1 being all the land outside of these specified zones.

7.9 A Flood Risk Vulnerability Classification for various land uses and development is also contained in PPS25. Sand and Gravel workings have been defined as water compatible development with all other minerals working and processing defined as 'less vulnerable' to flood risk.

Policy Principle 2 : Flood Risk

In line with Planning Policy Statement 25: "Development and Flood Risk" all applications will be required to demonstrate how flood risk to and resulting from, the development will be managed. The effect of climate change must also be taken into account and the use of Sustainable Drainage Systems (SUDS) will be encouraged for all developments.

Consultation Question

Question 10: Do you agree with the Policy Principle regarding Flood Risk?

7.10 To control and mitigate against any adverse environment effects of mineral development and ensure that any implications for the quality of life for local communities are mitigated for, the Mineral Planning Authority can place constraints or conditions on any planning permission. The Conditions and Legal agreements may be placed on the following matters relating to each specific development:

- Commencement, time limits, and phasing of operations of the Permission
- Hours of Operation
- Blasting and Vibration
- Protection of the Hydrological Environment including watercourses and groundwater.
- Dust and Noise
- Subsidence
- Visual Intrusion and site illumination
- Traffic Movements and Routing
- Access
- The Cleaning of Vehicles exiting a site onto the Highway Network
- Production Limits
- Soil Stripping and the Management of Stored Soils and Overburden.
- Depth of Working
- Restriction of Permitted Development Rights
- Screening of operations from other developments
- Stand off distances from other land uses including residential and sensitive properties.
- Importation of other materials for production or restoration purposes.
- Archaeology, Biodiversity and Geodiversity
- Landscaping
- Restoration, aftercare and afteruse

7.11 The Mineral Planning Authority will seek to ensure that all conditions meet the tests as stipulated in Circular 11/95, “The use of Conditions in Planning Permissions”. Therefore all conditions and legal agreements imposed an any planning permission must be

- Necessary
- Relevant to Planning
- Relevant to the Development Permitted
- Enforceable
- Precise
- Reasonable in all other respects

General Principles of Future Mineral Extraction

7.12 An overall strategy for developing a general strategy for planning for future extraction and the protection of mineral resources has been developed and covers:

- Extensions to Existing Mineral Sites
- Allocating Sites for future Mineral Extraction
- Proposals for Mineral Extraction Outside Allocated Areas
- Safeguarding Sites from sterilisation by other developments
- Mineral Consultation Areas.

Extensions to Existing Mineral Working Sites

7.13 In line with current Government Guidance in MPS1 when identifying sites either for allocation in the plan for mineral extraction or in assessing the merits of individual applications the benefits of extensions to existing sites should be considered. By extending existing operations it may be possible to reduce overall environmental disturbance and avoid the sterilisation of possible reserves by making more efficient use of the mineral.

7.14 The Issues and Options consultation assessed the concept of extending sites when addressing the issue of planning for the future supply of sand and gravel *(Key Issues 3).* The fundamentals are similar though for all minerals and extensions to existing operations, where possible and environmentally acceptable can be a more sustainable way of planning for minerals.

Policy Principle 3 : Extensions to Existing Mineral Workings.

Proposals for the extension of existing mineral workings will be encouraged provided their impacts are environmentally acceptable and are in accordance with the provisions of the Development Plan.

Consultation Question

Question 11:	Do you agree with Policy Principle 3 relating to Extensions to Existing Mineral Workings.

Site Allocation and Mineral Safeguarding.

7.15 ### Allocated Sites

Sites which are identified in the Minerals Allocation Document as Preferred Sites for Mineral Extraction have a general presumption in favour for proposals for extraction within them. Allocated sites have come through an assessment process which will have studied the mineral deposit and likelihood of extraction being viable within the plan period and judged them against environmental and other constraints. However, this presumption in favour does not mean that all applications within these areas will be acceptable. It will still be necessary to examine all proposals against the development plan, the need for the material and insure the required consultation process is undertaken.

Policy Principle 4 : Allocated Sites for Mineral Extraction

Areas allocated as Preferred Areas for Mineral Extraction have a general presumption in favour of proposals for extraction within them.

Consultation Question

Question 12:	Do you agree with Policy Principle 4 relating to Allocated Sites for Mineral Extraction.

7.16 It should be noted that the allocation of sites for extraction will be limited to minerals for which there is a demonstrated need for the granting of additional reserves over the plan period of the Minerals Development Framework, which from adoption to 2021.

Proposals for the extraction of minerals for which there is no allocation of sites will have to justify that there is a particular need for the mineral and the development will be environmentally acceptable and in accordance with the policies in the Development Plan.

Policy Principle 5 : Mineral Extraction Outside Allocated Areas

There will be a general presumption against the granting of permissions for the extraction of minerals for which there are Allocated Site existing in the Plan. The applicant will have to demonstrate that there is a justifiable need for the mineral which cannot be satisfied by extracting in existing allocated sites.

Consultation Question

Question 13:	Do you agree with Policy Principle 5 relating to Mineral Extraction Outside Allocated Areas.

Safeguarded Sites

7.17 Safeguarded sites have no presumption in favour of development but act as a specific tool to safeguard known mineral reserves from sterilisation from other developments. A safeguarded site has clearly defined boundaries and its mineral potential has been recognised if not fully proven. Safeguarding of sites allows the Mineral Planning Authority to take steps to avoid unnecessary sterilisation of mineral reserves and would require developments which would sterilise the mineral to demonstrate that this is justified. The prior extraction of minerals, where practicable, will be encouraged where non-mineral development will occur in a Safeguarded Site.

7.18 Safeguarded sites will also make communities aware of the presence of potentially workable mineral reserves. Safeguarded sites could include sites which have been subject to previous applications or were promoted for allocation in the previous or forthcoming plans. District Councils should show and make reference to Mineral Safeguard Sites in their Local Development Frameworks so ensuring the County Council are notified of development proposals which may impact on these sites.

Policy Principle 6 : Safeguarded Sites

Sites will be designated Safeguarded sites where the presence of viable mineral reserves have been identified, their extent defined and where extraction is likely to occur in the future. There is no presumption in favour of applications for mineral extraction on these sites but they will act as an indication to local communities as to the location of future sites of mineral allocations or extraction.

Safeguarded sites will offer protected from sterilisation from other forms of development as they are clearly defined and the resources have been assessed.

Consultation Question

Question 14:	Do you agree with Policy Principle 6 relating to Safeguarded Sites.

Mineral Consultation Areas (MCA's)

7.19 MCA's define broad areas in which the presence of minerals resources has been identified but not assessed in detail. They are based on basic geological maps but contain no information on the quality, extent or likelihood of extraction ever taking place. Mineral Consultation Areas should flag up proposals which have the potential, if developed, to sterilise mineral reserves.

7.20 District Councils will be required to ensure that applicants provide evidence that for developments within MCA's the mineral potential of the area has been properly investigated and where sterilisation of reserves would occur, then planning permission should be refused unless overriding considerations exist. It may also be possible to extract the mineral prior to the development commencing unless this causes unacceptable environmental impacts.

7.21 A mineral assessment may be required for a development in a MCA as part of the planning process and if viable mineral reserves are present the MPA may object to the proposal or try and get the mineral extracted prior to development.

7.22 Currently Warwickshire County Councils MCA's define areas where there is a presence of aggregate resources. This has been supplied to all five District Councils within the County. As Mineral Planning Authority Warwickshire requires to be consulted on all planning applications falling within the Mineral Consultation Areas with the following **exceptions.**

- Development in accordance with the allocations of an adopted or deposited local plan
- Householder applications such as extensions to houses
- Reserved Matter applications unless the Mineral Planning Authorities specifically requested consultation at the Outline stage
- Minor Developments, such as fences, walls, bus shelters
- Applications for listed buildings unless specifically requested
- Advertisement applications
- Extensions or alterations to an existing use/building which do not fundamentally change the scale and character of the use/building, but **sub-division of a dwelling will require consultation**
- Developments requiring permission by virtue of a Direction under Article 4 of the Town and Country Planning General Permitted Development Order 1995

Policy Principle 7 : Mineral Consultation Areas.

Mineral Consultation Areas (MCA's) will be drawn around areas where presence of possible mineral resources have been identified but not yet assessed. District Council's should make provision in the Local Development Plans for MCA's and should ensure applications for non mineral developments include evidence that the mineral potential at that site has been assessed.

Consultation Question

Question 15:	Do you agree with Policy Principle 7 relating to Mineral Consultation Areas

Figure 2 * **A Graphic representation of how applications will be assessed with regards to the proposed land designations in the Minerals Core Strategy.**

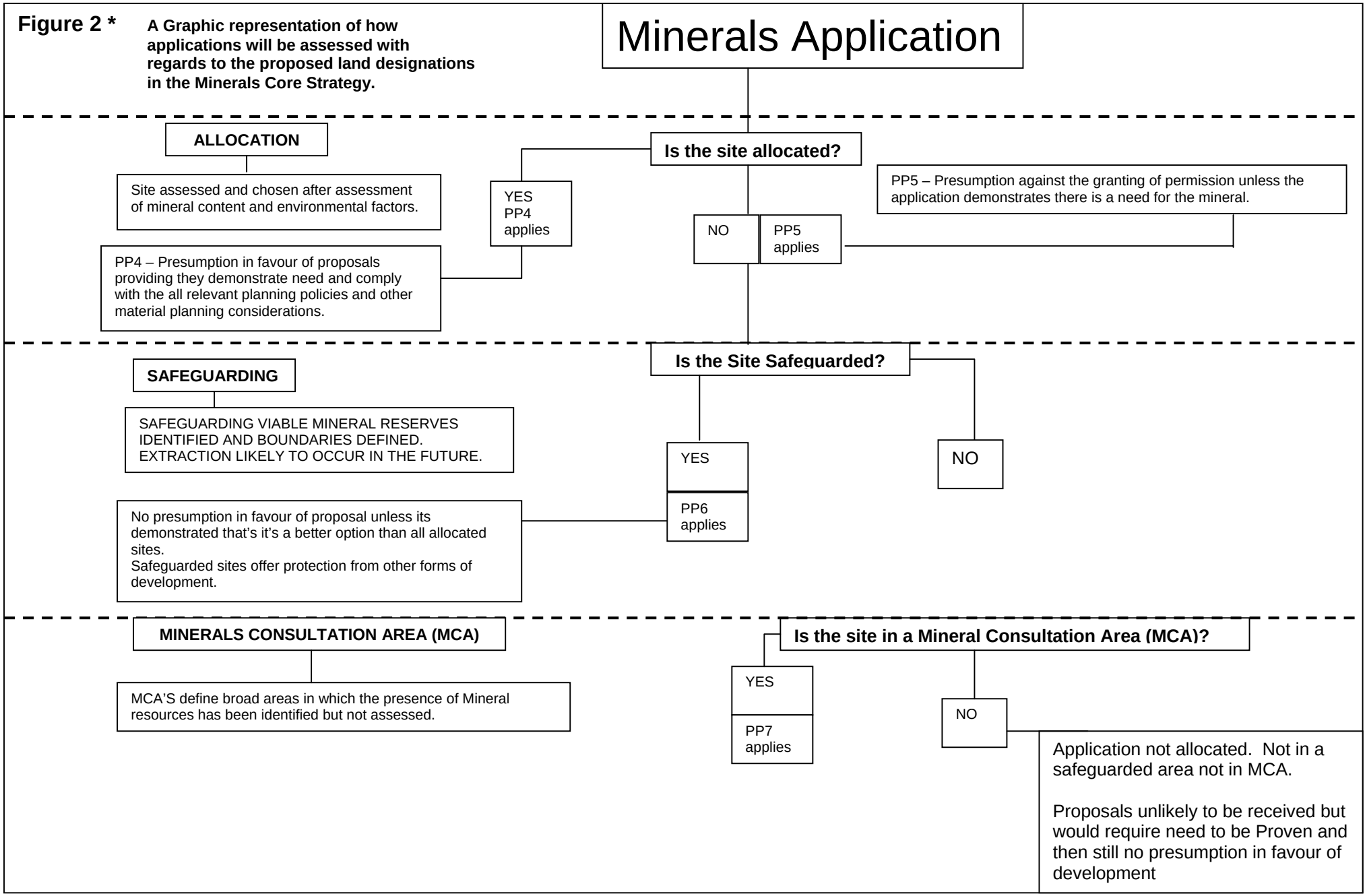


Table 4: SA of Preferred Option 1 : Criteria for assessing mineral developments

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	This approach will allow for the consideration of Biodiversity Action Plans alongside other biodiversity issues.	No negative effects predicted at this stage	0	+	+/+	Good site selection will optimise the probability that habitats will be protected from damage.	County Ecologist's input is essential when assessing sites. Assessment should accord with PPS 9.
2	Protect and improve water resources	Localised issues and can considered along side relevant policies relating to water resources.	No negative effects predicted at this stage	0	+	+/+	Water resources should not be compromised if effective site selection procedures are carried out. It may also be possible to redress any adverse water quality impacts arising from existing minerals sites.	Proper site assessment should ensure sites comply with the Water Framework Directive
3	Avoid, reduce and manage flood risk	This approach allows for the consideration of regional Strategic flood risk assessments alongside the principles of PPS25 to avoid, reduce and manage flood risk.	No negative effects predicted at this stage.	0	+	+/+	The provisions of PPS25 and other relevant legislation will be taken in to account in decision making.	There should be a safeguards to prevent flood risk on surrounding land as well as within the quarry operation.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Full and early assessment, based on consultation responses as well as policy and guidance should minimise impacts on community health .	No adverse impacts can be predicted at this stage.	0	+	+/+	Continual monitoring and good communication channels between operators and regulatory agencies will help to limit statutory nuisances.	Monitor sites and promote high standards of air pollution control and management at minerals facilities.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Assessing sites in this way will allow more safeguards to allow the conservation and enhancement of landscapes and townscapes.	No adverse impacts can be predicted at this stage	0	+	+/+	Assessment criteria should take account of local distinctiveness.	Landscape Character Appraisals should be used in mitigation /enhancement proposals.
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Effective site assessment should avoid development on important sites	No adverse impacts can be predicted at this stage	0	+	+/+	Development should avoid such features and where this is not possible effective restoration should be encompassed in a planning condition.	County Archaeologist's input when assessing sites is essential.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
7	Protect soil resources	Site assessment will ensure soil recovery will be protected as far as possible.	No adverse impacts can be predicted at this stage	0	+	+/+	Stored topsoil may be able to be reinstated as part of a restoration scheme for agriculture – poorer soils could sometimes be better used for habitat creation or moulding landforms.	Higher grade agricult5ural land should be protected as far as possible.
8	To preserve and protect geological features and promote geological conservation	Assessment will ensure that Geological assets will be protected from development where possible.	No adverse impacts can be predicted at this stage	0	+	+/+	The priority is to avoid such features through good site selection and if this is not possible sites should be assessed to keep damage to a minimum.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible. Assessment should accord with PPS 9.
9	To promote the delivery of energy efficiency and carbon reduction targets	Through assessment using sustainability of sites as an aim carbon reduction could be the result.	Site assessment in this way will not produce negative impacts. The process of extraction will as finite resources will be used.	0	0	0	Although the overall process contributes to the global use of carbon in construction, there are opportunities to be energy efficient on a site by site basis through sustainable extraction methods and good site selection.	Although resources will be used the MDP will seek to ensure that mineral resources are extracted in a sustainable way where possible.
10	Reduce consumption of natural resources	Through assessment using sustainability of sites as a major aim consumption of resources could be reduced.	Site assessment in this way should not produce negative impacts. The process of extraction will as finite resources will be used	0	0	0	Although the overall process contributes to the global use of carbon in construction, there are opportunities to reduce consumption of resources on a site by site basis through sustainable extraction methods and good site selection	
11	To promote adherence to the movement of waste up the waste hierarchy	Assessing sites in this way will allow opportunities this objective to be fully considered and implemented if possible.	No adverse impacts can be predicted at this stage.	0	0	0	Priority in site selection could be given to sites where there is the opportunity for movement of waste up the hierarchy	
12	Enfranchise the community in improving the local environment	The relevance of consultation responses alongside policy and guidelines will minimise neighbourhood dissatisfaction.	No adverse impacts can be predicted at this stage.	+	+	+/+	It is important that the community are informed at every stage of the process to increase ownership of the plan.	Comments made during the plan process should be used in the LDF preparation and integrated in to the framework where necessary.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	Assessing sites in this way will allow opportunities for this objective to be fully considered and implemented where possible.	The minerals sites selected may not always allow the opportunity for waste development	0	0	0	The MWDF seeks to link the minerals and waste sectors where possible	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Assessing sites in this way will allow opportunities this objective to be fully considered and implemented if possible.	No negative effects are predicted in this instance.	0	+	+	In site selection there are opportunities to explore opportunities to contribute to regeneration objectives	
15	To explore linkages between the waste and minerals sectors	The achievement of this objective will be aided by the consideration of waste policies and guidance in the MDF.	No negative effects are predicted in this instance.	0	+	+	The MWDF seeks to link the minerals and waste sectors where possible.	More financial incentives may be required to achieve this objective
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	With a clear assessment process at an early stage, the parameters can be set out which will enable operators to explore new technologies.	No negative effects are predicted in this instance	0	+	+/+	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.	More financial incentives may be required to encourage the development of new technologies

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	10
+	15
0	23
-	0
--	0

7.23 The importance and the mechanism for the provision of aggregates has been outlined in sections 3.47 to 3.52.

7.24 MPS1 contains an Annex on Aggregates and reiterates the importance of the 2003 National Guidelines for Aggregate Provision in England and Wales. MPS1 also states that Mineral Planning Authorities should use the length of the landbank of permitted reserves for sand and gravel as an indicator of when new permissions are likely to be needed. The landbank indicator for sand and gravel is given as 7 years.

The West Midlands Regional Aggregate Working Parties Annual Survey for 2005 has just been completed but not yet published but the data for Warwickshire has been used below.

Calculation of Sand and Gravel Provision until 2021.

7.25 The Guidelines for Aggregate production published in 2003 cover the period of 2001 to 2016 but the MDF will run until 2021. To cover the period of time between 2016 and 2021 with regard to predictions for aggregate use government has advised to assume there will be no alterations in demand and continue just extend the 2016 figure up to 2021. This means that until there is a formal change in the National Guidelines for aggregate production the apportionment targets for all MPA's will be consistent with current values until 2021.

Warwickshire's Permitted Reserves for Sand and Gravel 2005	= 8.4 million Tonnes
Annual Apportionment (over plan period)	= 1.043 million Tonnes
Landbank (2005)	= 8.1 years
Total Sand and Gravel Provision for 2006 – 2021	= 1.043 x 15 years 15.7 million Tonnes.

7.26 With Warwickshire's current land bank for 2006 can be estimated to be just over 7 years when accounting for another years production since the 2005 figures it is clear that Warwickshire will have to make provision for approximately 15 million tones of sand and gravel over the period until 2021. The 15 million tonnes would also allow for the landbank to remain around the recommended 7 years of supply.

7.27 It is therefore clear that Warwickshire will have to provide additional sites for sand and gravel extraction over the plan period to accommodate a possible 15million tonnes of material. It would also be prudent in allocating sites to build flexibility into the plan by allocating over the required 15 million tonnes should the demand for sand and gravel increase at any point until 2021. This would not translate to an over provision of permitted reserves as the status of the landbank would always be a consideration on judging any application.

7.28 The current Minerals Local Plan for Warwickshire allocates Preferred Areas for extraction which are areas where specific information on the economic viability of the deposit have been assessed. These sites therefore have been examined both against environmental constraints and deposit quality and their identification confers a general presumption in favour of a proposal for extraction. The current Minerals Local Plan also indicates Areas of Search, which is an indication that these sites have mineral potential but there hasn't been the same investigation to prove the quality of the deposit and therefore industry is encouraged to assess their economic viability. Areas of Search have been through the same environmental constraints process as preferred areas.

7.29 On the understanding that Warwickshire will have to provide additional sites for sand and gravel extraction over the plan period the Issues and Options consultation asked the following question.

How should the County Council approach the issue of providing additional areas for future sand and gravel extraction?

The following options were identified for selection and comment -

Option A: *The allocation of preferred specific sites for future sand and gravel extraction?*

Option B: *The allocation of both preferred sites and areas of search where the mineral potential has yet to be fully assessed?*

Option C: *No specific allocation of sites and all applications judged against a criteria based policy and use a criteria based approach to selection.*

7.30 Following the Issues and Options consultation the preferred option was A. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option: A
The allocation of preferred sites for future sand and gravel extraction in the Minerals Development Framework.

7.31 Reasoning

In line with current national planning guidance allocations of areas for future mineral extraction in development plans gives greater clarity to local residents, industry and other interest groups. In order to give further clarity of potential mineral working sites to local communities' sites which are not allocated in the Plan but may come forward when the plan is periodically reviewed shall be identified as **Safeguarded Sites**. These specific sites have no presumption in favour for mineral extraction but have known reserves of sand and gravel which are likely to be extracted in the future. These sites may have been subject to previous planning applications or were promoted for allocation in the plan but were not included as preferred areas of extraction.

7.32 The majority of the consultee responses supported the use of both Allocated Sites and Areas of Search. It has been considered that by replacing Areas of Search with Safeguarded Site Designations there will be no confusion as to which sites have the presumption in favour of development. However, the Safeguarded sites will alert local communities to the possibility of future mineral extraction at some point in the future.

7.33 Mineral Consultation areas will also be created where the presence of sand and gravel has been identified from British Geological Survey maps or other sources of information but little is known about the quantity or quality of the deposit. Proposal's for developments in MCA's may need to include a resource assessment to ascertain the nature of the deposit which may lead to the encouragement of extraction of the material prior to the development taking place.

Policy Principle 8 : Sand and Gravel Landbanks

Applications for the working of sand and gravel will be considered in the context of the assessed regional demand and the aim of providing and maintaining a sufficient and adequate landbank of permitted reserves as stated in Government Policy and Regional and National Guidelines for the supply of sand and gravel.

Policy Principle 9 : Preferred Areas

The plan will allocate Preferred Sites for future sand and gravel extraction and permission will only normally be granted within these areas unless one or more of the following exceptional circumstances apply -

- The is a demonstrated need for the mineral inline with National or Regional Guidelines
- The deposit has specific properties which cannot be sourced from existing reserves or allocated sites.
- The extraction of the mineral would prevent subsequent sterilisation of the material.

Consultation Questions

Question 16:	Do you agree with the Preferred Option for Key Issue 2 - Sand and Gravel Extraction
Question 17:	Do you agree with Policy Principle 8 regarding Sand and Gravel Landbanks?
Question 18:	Do you agree with Policy Principle 9 regarding Preferred Areas?
Question 19:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 2?

7.34 The construction and improvement of roads and other infrastructure and projects often require large amounts of minerals and bulk materials. It can often be more sustainable to obtain locally sourced material, if suitable, from sites adjacent to the area of construction. The advantages of such extraction, usually termed Borrow Pits, are that they can reduce the need to import minerals by road from existing sites and also conserve these resources which would otherwise have to be replaced with new permissions.

7.35 There are several road building projects either permitted, planned or under consideration in the county. These included:

- The Improvements to the Tolbar A45/46 Junction near Coventry Airport – (est 2010)
- The Rugby Western Relief Road (est 2007)
- The M40 Bypass at Junction 15 – A46 (est 2009)
- The Dosthill Bypass (no date)

7.36 It is only really possible to consider suitable sites for the location of borrow pits once the details of the proposal have been confirmed so it is not feasible to identify likely sites in the Minerals Development Framework. Proposal's for borrow pits will be assessed against the provisions of the development plan and should link the full restoration of the site to the completion of the construction project.

Policy Principle 10 : Borrow Pits

Applications for the determination of applications for borrow pits will be considered against the policies of the Development Plan and only be granted where the proposal would –

- minimise the impact of the transportation by road of materials and minerals required for the construction of the development
- conserve existing permitted reserves of minerals
- be fully restored as part of the construction project

Consultation Question

Question 20:	Do you agree with the Policy Principle relating to Borrow Pits?

Table 5: SA of Preferred Option : Key Issue 2: Sand and Gravel Extraction

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	No impact in the short term. A proactive approach will allow for enhancement of biodiversity in the medium and long term	No negative impact in the long term. Any impact will depend on site location. The biodiversity resources will be protected and enhanced where possible	0	+	+	The majority of SSSIs in Warwickshire are former minerals workings. The beneficial effects will be realised in the medium term and the long term through phased restoration	Development should accord with PPS9. must be Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB
2	Protect and improve water resources	No impact in the short term. A proactive approach will allow for enhancement of water resources in the medium and long term, which could lead to an improvement.	No impact in the long term. Any impact will depend on site location. Water resources will to be protected ad enhanced where possible.	0	+	+	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	It is likely that flood risk will be minimised as far as possible.	Although Sand and Gravel extraction is water compatible, it may have effects elsewhere.	0	+	+	Allocation can take in to account issues raised in a strategic flood risk assessment.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Prudent site selection will serve to enhance the environment as well as protect human health.	There will be environmental impacts with any operation with regard to issues such as dust and traffic. These will be site specific. Potential effects should be minimised at application stage.	0	+	+	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There will be short term and medium term development impacts.	0	+	+	Allocation of sites allows for early consultation between developers and local communities. This can enable a long term solution for the right type of restoration in the right locality tailored to the particular landscape or townscape. There is a potential to use detailed Landscape Character Assessments to inform this.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Allocation of sites will allow for more detailed investigation at an early stage and provide more certainty for all stakeholders.	Some archaeological resources could be compromised because allocated sites have a presumption in favour of development.	0	+	+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Allocation of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	Some degradation of soil is possible but this option will not necessarily have an effect on the objective.	0	+	+	Top soil can be stored and reused in the medium term and long term.	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.
8	To preserve and protect geological features and promote geological conservation	Allocation of sites will allow for more detailed investigation at an early stage. Extraction can expose geological features which could be studied and potentially preserved.	Some features could possibly be lost but this option will not necessarily have an effect on the objective.	0	+	+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible. Development should accord with PPS9.
9	To promote the delivery of energy efficiency and carbon reduction targets	In the short term the effects would be neutral. Allocation could facilitate planning for increased energy efficiency on minerals sites.	Extraction by its nature will not reduce the use of carbon but should seek to promote the delivery of energy efficiency	0	-	-	CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Allocation of sustainable sites will help to reduce consumption of natural resources.	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective.	0	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
12	Enfranchise the community in improving the local environment	Site allocation will give more certainty of development allowing the community to have a greater input from the start.	It is not possible to predict any negative effects at this stage	+	+	+	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	+	+	+	It is likely that this option would contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	It is not possible to predict any negative effects at this stage	0	0	0	Policy will provide opportunities for liaison between the waste and minerals sectors.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A proactive approach can increase investment in new technologies.	The location and nature of the site may limit the type of technology possible.	0	+	+	Certainty of development provides more opportunities to explore the commercial opportunities of new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	0
+	24
0	20
-	4
--	0

7.37 In keeping with National and Regional Guidelines for the supply of aggregate it is clear that new reserves of sand and gravel will have to be released over the plan period. The preferred option for this is by the allocation of Preferred Sites for sand and gravel extraction and safeguarding and protecting other areas where mineral reserves may exist. In the allocation of sites for future sand and gravel extraction the Issues and Options paper raised the question of how to address the general geographic location of these allocations.

The Consultation asked:

What is the preferred option in planning for future sand and gravel extraction in Warwickshire?

The identified Issues for selection and comment where:

Option A: *To consolidate production in existing areas of mineral extraction by the encouragement of extensions to existing quarries and through the allocation of sites.*

Option B: *Release new sites to supply the required amount of sand and gravel with the aim of distributing operations across the county.*

Option C: *Issue no guidance to the general geographical allocation of future sand and gravel extraction.*

7.38 Following the Issues and Options consultation the preferred option was A. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option: A (amended)

To consolidate future sand and gravel production in current areas of extraction by encouraging extensions to existing operations and by the allocation of new sites as Preferred Areas for extraction where acceptable.

7.39 **Reasoning**

From the consultation feedback Option A was generally considered to be the best option but if demand could not be met then Option B could be used. It was considered that Option A would ensure the least environmental impacts of the thee options but there are obvious concerns that local communities close to existing sites would be accepting more mineral extraction and its associated impacts for an extended period of time. The issue of the cumulative effect of mineral extraction sites on locations should be identified and used in the Environmental Impact Assessment for any proposal.

Extending existing sites may have significantly less impact on the environment and local communities than the creation of totally separate and new operations. MPS1 does recognise the possibility that there may be benefits, *"in terms of reduced environmental disturbance and more efficient use of mineral resources including full recovery of minerals, of extensions to existing mineral workings rather than new sites."*

Policy Principle 11 : Location of Future Sites for Sand and Gravel Extraction

Extensions to existing sand and gravel operations will be encouraged and permitted where it can be demonstrated that the impacts of such development will be acceptable, in accordance with the policies of the development plan.

New sites for extraction will also be necessary and will be assessed against the general development criteria and the development plan. New sites will be judged more favourably where they seek to employ existing infrastructure to lessen environmental impacts and will be encouraged to maximise the use of the primary road network where other forms of transport has been proven to be unviable.

These areas would predominately be where sand and gravel deposits are in close proximity to roads such as the A46, A45 and A5 as well as the Motorway network.

Consultation Question

Question 21:	Do you agree with the Preferred Option for Key Issue 3 – Location of future Sites for Sand and Gravel Extraction?
Question 22:	Do you agree with the Policy Principle 11 relating to the Location of Future Sites for Sand and Gravel Extraction?
Question 23:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 3?

Table 6 : SA of Preferred Option : Key Issue 3 Location for Future Sand and Gravel Extraction

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	No impact in the short term. Consolidation of operations in existing quarries could reduce the amount of habitat lost to development.	No impact in the long term. Any impact will depend on site location. The biodiversity resource will be protected and enhanced where possible.	0	+	++	The beneficial effects will be realised in the medium term and the long term through phased restoration.	The majority of SSSIs in Warwickshire are former minerals workings. Development should accord with PPS9.
2	Protect and improve water resources	As there are already minerals workings in areas, issues regarding water resources will already be known of so mitigation would already be in place.	No negative impact in the long term. Any impact will depend on site location. The biodiversity resources will be protected and enhanced where possible	0	+	++	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	existing local knowledge provides more information on flood risk making it more predictable.	Although Sand and Gravel extraction is water compatible, it may have effects elsewhere.	0	+	++	Mineral developments may help in the long term alleviation of flood risk in some areas by the creation of balancing lakes/ponds.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Site extensions build on existing relationships between regulatory bodies.	There will be environmental impacts with any operation. However effective mitigation and monitoring will already be in place in existing sites and issues will be known in areas where development has taken place.	0	+	++	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs).
5	To conserve and enhance the character and quality of the County's landscape and townscapes	In the short term, less land and new infrastructure would be needed for the extension of sites compared to dispersed new development, conserving landscapes and townscapes.	Concentration of developments can prolong the effect on landscape in effected areas	0	+	++	Site selection t is key in ensuring that impacts to the landscape and townscape are minimised.	A proactive approach would allow for consideration of District/Borough Local Plans and WCC Landscape Guidelines.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Consolidation of sites of sites will allow for more detailed investigation and utilisation of existing knowledge.	Several sites in Warwickshire are rich in archaeological features, extensions could further disturb these.	0	+	++	Use of background knowledge by the existing and existing surveys undertaken in the area should benefit archaeology in the long term.	Development on allocated sites should accord with provisions of PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of resources.	There are no predicted negative effects at this stage.	0	+	++	Effect would be localised but need not be permanent subject to an effective soil management plan.	Care should be taken to protect soil resources.
8	To preserve and protect geological features and promote geological conservation	Extension developments may be able to make use of information submitted with the original development and recent discovery.	Most minerals operations in Warwickshire contain geologically important features, which may be lost with further extraction.	0	0	++	With adequate mitigation features maybe preserved and enhanced. . It should be ensured that minerals operators adopt the highest standards of maintenance, restoration and after care.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.Development should accord with PPS9
9	To promote the delivery of energy efficiency and carbon reduction targets	In the short term the effects would be neutral. Quarry extensions would be more energy efficient and help in the reduction of carbon levels.	There are no predicted negative effects at this stage.	0	0	0	Effects maybe limited however they will be felt further than the Warwickshire boundary.	Energy efficiency should be promoted.
10	Reduce consumption of natural resources	Quarry extensions would be more energy efficient and reduce consumption of natural resources.	Consolidation need not have a negative effect. Extraction by its nature consumes finite resources.	0	0	0	Although the effects on this objective would be small, consolidation is likely to have a slightly positive effect.	Care should be taken to protect natural resources where possible.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	It is not possible to predict any negative effects at this stage	0	0	0	Consolidation of sites is unlikely to have a significant effect on this objective.	
12	Enfranchise the community in improving the local environment	Communities will already be aware of the issue and will be able to engage with the process.	Extending existing minerals sites may cause concern to local communities.	+	++	++	Mineral operators should seek to work with communities through thorough early consultation.	Communities will be consulted early on in the process of completing the Minerals Allocations DPD. Any concerns which they may have should have been addressed.
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects.	0	0	0	Consolidation of sites is unlikely to have a significant effect on this objective.	

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Extension of sites avoids possible sterilisation of existing mineral resources thereby ensuring supply.	There are no predicted negative effects.	+	+	+	Economic benefit to the industry may occur through utilisation of existing infrastructure.	
15	To explore linkages between the waste and minerals sectors	Consolidating existing sites will provide opportunities to enhance any opportunities to achieve this objective.	It is not possible to predict any negative effects at this stage	0	+	+	Consolidation in existing areas will provide opportunities to enhance any existing links.	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Long term opportunities may encourage investment in new technologies.	The site may limit the type of technology possible.	0	+	+	Although linkages to this option maybe limited opportunities do exist.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	10
+	15
0	23
-	0
--	0

7.40 Ancient rocks ranging from Pre-Cambrian to Ordovician age outcrop over a small area around Nuneaton and Atherstone. These rocks are much older than the surrounding Carboniferous Coal Measures and Triassic Sandstones and shales and comprise of hard Precambrian and Ordovician igneous diorites and Cambrian Sandstones. These hard rocks have specific physical properties which make them ideal aggregates for use in road construction and surfacing and the outcrop of the rocks can almost be traced from the location of old and current mineral workings.

7.41 Two quarries are currently in operation around Nuneaton, Mancetter and Griff, which extract the Ordovician diorites which are igneous rocks which were originally intruded into older Cambrian Shales. Both rock types are used as aggregates but the diorite is ideal for roadstone and other applications requiring high specification aggregate. Jees and Boon quarry has large reserves of hard rock but is currently non-operational but all three quarries are ideally located around the central England Motorway and Principal Road Network to serve as a source of road coating material.

Crushed Rock Reserves in Warwickshire (2005)

7.42 In line with National and Regional Guidelines Warwickshire has to make provision for the supply of 0.88 million tonnes of crushed rock a year now that production from the West Midlands County (Edwin Richards Quarry, Sandwell) has all but ceased. The West Midlands Regional Aggregate Working Parties Annual Survey for 2005 will show that Warwickshire has 31,374,000 million tonnes of permitted reserves of crushed rock.

Total Permitted Reserves 2005	31,374,000 (million tonnes)
Annual Apportionment	0.88 (million tonnes)
Current Landbank	35.7 years

7.43 Like sand and gravel production the National Guidilines for aggregates (2003) run until 2016 but can be extended to 2021 to cover the plan period of the Minerals Development Framework. Therefore, if there are no increases in the .88 million tonnnes provision the current landbank in Warwickshire will be around 20 years. MPS1 states that the landbank for crushed rock should be at least 10 years and Mineral Planning Authorities should take into account other factors including location to markets and productive capacity. The high specification aggregates provided by the crushed rock quarries in Warwickshire are of regionally importance and changes in demand due to increases in road building other major developments may increase pressure on the supply of these minerals.

7.44 The consultation raised the following issue

How should the remaining crushed rock reserves around Nuneaton and North Warwickshire be addressed in the Minerals Development Framework?

The following options were identified for selection and comment:

Option A: *Allocate sites which are known to contain workable reserves which might be subject to applications for extraction at some point in the future.*

Option B: *Safeguard areas which contain or may contain workable reserves to prevent sterilisation and indicate extraction may occur at some time.*

Option C: *Update the current boundaries of the Mineral Consultation Areas which already exist to preserve potential resources using the latest information from the British Geological Survey and industry.*

Following the Issues and Options consultation the preferred option was A. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option: A

Allocate sites which are known to contain workable reserves which might be subject to applications for extraction at some point in the future.

7.45 **Reasoning**

The landbank is sufficient to remain above the 10 year recommended target for permitted reserves over the plan period at current production and apportionment levels. However, as previously indicated there may be increasing demand for crushed rock over the coming years due to increases in house building and major infrastructure projects which may cause current estimates of crushed rock demand to be revised upwards. In order to ensure efficient use of existing reserves of high specification aggregates and provide the necessary flexibility to respond to changes in demand the allocation of sites within the plan was considered to be the best option.

The exposed and accessible reserves of crushed rock around Nuneaton are very limited due to the encroachment of other developments and therefore a high degree of protection should be granted to safeguard these high specification aggregates. The allocation of sites in the plan, which would necessarily be extensions to existing operations where viable would serve to protect reserves of rock, inform local communities of possible future mineral workings and create flexibility in the MDF to cater for possible increases in demand for crushed rock from Warwickshire.

Policy Principle 12 : Crushed Rock

Applications for the working of sand and gravel will be considered in the context of the assessed regional demand and the aim of providing and maintaining a sufficient and adequate landbank of permitted reserves as stated in Government Policy and Regional and National Guidelines for the supply of crushed rock aggregate.

Preferred Sites for future extraction of the high specification aggregates will be allocated in the proposals Maps of the Minerals Development Framework.

Consultation Question

Question 24:	Do you agree with the Preferred Option for Key Issue 4 – Crushed Rock?
Question 25:	Do you agree with the Policy Principle 12 relating to the Crushed Rock production in Warwickshire?
Question 26:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 4?

Table 7: SA of Preferred Option : Key Issue 4 Crushed Rock

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	No impact in the short term. A proactive approach will allow for enhancement of biodiversity in the medium and long term	No negative impact in the long term. Any impact will depend on site location. The biodiversity resources will be protected and enhanced where possible	0	0	++	The majority of SSSIs in Warwickshire are former minerals workings. The beneficial effects will be realised in the medium term and the long term through phased restoration.	Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	No impact in the short term. A proactive approach will allow for enhancement of water resources in the medium and long term, which could lead to an improvement.	No impact in the long term. Any impact will depend on site location. Water resources will to be protected and enhanced where possible.	0	0	++	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	Allocating sites will allow for early flood risk assessments which will improve flood risk management.	Any impact on flood risk will depend on the site.	0	0	++	Allocation can take in to account issues raised in a strategic flood risk assessment.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Prudent site selection will serve to enhance the environment as well as protect human health.	There will be environmental impacts with any operation with regard to issues such as noise, dust and traffic. These will be site specific. Potential effects should be minimised at application stage.	0	0	++	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There will be short term and medium term development impacts.	0	0	++	Allocation of sites allows for early consultation between developers and local communities. This can enable a long term solution for the right type of restoration in the right locality tailored to the particular landscape or townscape. There is a potential to use detailed Landscape Character Assessments to inform this.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Allocation of sites will allow for more detailed investigation at an early stage and provide more certainty for all stakeholders.	Some archaeological resources could be compromised because allocated sites have a presumption in favour of development.	0	0	++	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Allocation of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	Some degradation of soil is possible but this option will not necessarily have an effect on the objective.	0	0	++	Top soil can be stored and reused in the medium term and long term.	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.
8	To preserve and protect geological features and promote geological conservation	Allocation of sites will allow for more detailed investigation at an early stage. Extraction can expose geological features which could be studied and potentially preserved.	Some features could possibly be lost but this option will not necessarily have an effect on the objective.	0	-	+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	Allocation could facilitate planning for increased energy efficiency on minerals sites.	Extraction by its nature will not reduce the use of carbon but should seek to promote the delivery of energy efficiency	0	-	-	CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Allocation of sustainable sites will help to reduce consumption of natural resources.	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective.	0	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
12	Enfranchise the community in improving the local environment	Site allocation will give more certainty of development allowing the community to have a greater input from the start.	It is not possible to predict any negative effects at this stage	+	++	++	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	+	++	++	It is likely that this option would contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	Policy will provide more certainty of development opportunities for liaison between the waste and minerals sectors.	It is not possible to predict any negative effects at this stage	0	+	+	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A proactive approach can increase investment in new technologies.	The location and nature of the site may limit the type of technology possible.	0	+	+	Certainty of development. Provides more opportunities to explore the commercial opportunities of new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	11
+	7
0	25
-	5
--	0

Key Issue 5: Secondary and Recycled Aggregates

7.46 Secondary and Recycled Aggregates from construction and demolition waste or other industrial processes including mineral extraction may have suitable physical or chemical properties which allow them to be used as an alternative to primary aggregates. It is Government Policy to encourage the greatest possible use of these types of alternative aggregates so as to reduce the demand for primary extraction. The National Guidelines for Aggregate Provision in England 2003 factor in targets for annual production of alternative aggregates and like targets for primary aggregates these figures are monitored annually and can be revised if necessary.

7.47 Policies for the processing of construction and demolition waste, road planings and other wastes suitable for aggregate production will be contained in the Waste Development Framework. However, it is important to link these activities with the Minerals Development Framework as the production of recycled aggregates will reduce the need for primary extraction and it may be possible to co-locate mineral extraction, secondary and recycled materials processing facilities.

7.48 Mineral waste's and overburden material from quarrying and mining activities may have the potential to be a source of secondary aggregate materials and by processing these by-products from mineral extraction into useable products the need for primary minerals can be reduced.

7.49 The Consultation asked:

How can the Mineral Development Framework best address the siting and promotion of recycled and Secondary Aggregates facilities which can reduce the need for primary extraction?

The options for selection and comment:

Option A: *Support and encourage construction and demolition treatment facilities and related alternative aggregate producing operations in new and existing quarries?*

Option B: *Encourage the siting of new aggregate recycling facilities as near to their source, which would predominately be in the urban areas?*

Option C: *Support the recycling and secondary use of minerals but issue no specific guidance on the location of new facilities leaving proposals to be assessed against the policies in the Waste Development Framework?*

Following the Issues and Options consultation the preferred option was C. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option C (amended)

The Minerals Development Framework should support the recycling and secondary use of minerals but issue no specific guidance on the location of new facilities leaving proposals to be assessed against the policies in the Development Plan.

7.50 **Reasoning**

The processing of mainly recycled materials particularly into aggregates can be best achieved at sites both within the urban areas and in existing quarries most of which are located in rural areas. The processing particularly of construction and demolition waste close to its point of origin will limit the use of bulk transportation on the road network but there may be opportunities to site such facilities in existing quarries which are close or have suitable transport links to urban areas.

When assessing a proposal for the siting of a recycling operation within a primary mineral site the proximity to the source of the material brought into the site for processing will be a major consideration as well as all other associated environmental impacts. The benefits of siting processing facilities

7.51 The use of secondary aggregates from mineral spoil, over-burden and other processing can reduce the need for extraction from existing sites and so have the potential to reduce the overall impact of mineral extraction. Secondary minerals may however result from the stripping of overburden to access the target mineral and their use as an aggregate may have implications for the final restoration of the development which would need to be assessed as part of the application process.

Policy Principle 13 : Recycled and Secondary Aggregates

Facilities for the reception, treatment and distribution of waste materials for the production of recycled aggregates will be encouraged at suitable sites. These sites may include existing aggregate quarries where appropriate and environmentally acceptable.

Applications relating to secondary aggregates and recycled aggregates will be assessed on their effect on:

- the reduction of the need for primary minerals
- moving waste up the waste hierarchy reducing the need for disposal
- agreed restoration schemes for mineral workings
- cumulative impacts on the environment and existing communities
- the transport network.

Consultation Questions

Question 27:	Do you agree with the Preferred Option for Key Issue 5 – Recycled and Secondary Aggregates?
Question 28:	Do you agree with the Policy Principle 13 relating to Recycled and Secondary Aggregates?
Question 29:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 5?

Table 8: SA of Preferred Option 5: Secondary and Recycled Aggregates

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Where development takes place, policy will ensure the objective is met in the long term.	Any impact will depend on site location. There would be a direct impact on biodiversity through dust, noise and air pollution	0	0	+	Permission for development of secondary and recycled aggregate facilities would be permanent.	Care should be taken to preserve the 18 local nature reserves (LNR), one site of international importance the Ensor's pool SAC, 8 Country Parks, 62 Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	As applications will be assessed on a site by site basis, there will be an opportunity to assess water resources taking account of the local context.	No negative impact in the long term. Any impact will depend on site location.	0	0	+	There may be the potential for the improvement of resources at new development sites in the long term.	Policy should seek to ensure enhancement of water resources on new development sites. Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	Applications will be assessed on a site by site basis. It is likely that flood risk will be minimised as far as possible.	The impact will depend on site location.	0	0	+	Development of secondary and recycled aggregate facilities would be permanent. Flood risk caused by this would be managed and potentially reduced in the long term.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Applications are assessed as individual cases on a site by site basis against policy that will serve to safeguard environmental quality in order to protect human health.	There will be environmental impacts with any operation with regard to issues such as dust, traffic and noise. These will be site specific. Potential effects will be minimised at application stage.	0	0	+	Applications would be assessed for their environmental impacts against stringent criteria set out in the MDF.	The consideration of an application will include public consultation to incorporate any concerns the public may have with sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	There may be opportunity to protect or enhance landscape character through assessment on a site by site basis.	The impact will depend on site location.	0	0	+	There is a potential to use detailed Landscape Character Assessments to inform this. This can enable a permanent solution for the right type of development for the locality tailored to the particular landscape or townscape.	It is important that policy in the MDF ensures that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	As applications are assessed on site by site basis, sites and features of importance would be taken in to account in the assessment.	There is less certainty of development in a particular area and therefore less time for detailed investigation.	0	0	+	It would be unusual for this type of development to impact on archaeology.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Consideration of applications on a site by site by site basis will allow for assessment of soil resources at the application stage.	Some degradation of soil is possible but this option will not necessarily have an effect on the objective.	0	0	0	It would be unusual for this type of development to impact on soil resources.	
8	To preserve and protect geological features and promote geological conservation	As applications are assessed on site by site basis there would be no presumption of development and therefore sites and features of importance would be taken in to account in the assessment.	In very rare cases some features could possibly be lost but this option will not necessarily have an effect on the objective.	0	0	+	This type of development would have a limited effect on geology.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	Assessment of applications in accordance with policy should encourage development to be energy efficient.	Inevitably development would create carbon emissions.	0	+	0	CO2 emissions from development will be felt on a global scale. This will be offset by the benefits of recycling.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Secondary and recycled aggregates sites would promote sustainable use of natural resources.	Development by its nature consumes finite resources but this option will not necessarily have an impact on the objective	+	+	0	Allocation of sustainable sites will help to reduce consumption of natural resources.	We will seek to ensure that minerals sites will be developed in a sustainable way.
11	To promote adherence to the movement of waste up the waste hierarchy	This option would enable the movement of waste up the waste hierarchy.	There are no predicted negative effects at this stage.	+	+	+/+	The Preferred Option provides a framework for this objective to be achieved, and should tie in with the waste hierarchy.	Links should be provided to the Waste Core Strategy. This would help to achieve this objective.
12	Enfranchise the community in improving the local environment	The community would be consulted during the application process, allowing them to have a major input.	Less certainty of development in the area, limiting opportunities for community involvement.	+	+	0	Any concerns raised by the community will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	Location of facilities will depend on need and demand. Potential to locate such facilities in sustainable locations close to mineral workings.	There are no predicted negative effects at this stage.	+	+	+	The Preferred Option will allow a framework for this objective to be achieved.	Co-location of facilities may reduce the overall environmental impact
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Potential to locate such facilities in sustainable locations close to, or within mineral workings.	There are no predicted negative effects at this stage	+	0	0	It is likely that this option would contribute to sustainable economic development for Warwickshire.	Good policies will provide more certainty for developers.
15	To explore linkages between the waste and minerals sectors	There is potential for waste facilities to be incorporated in to minerals developments where appropriate.	It is not possible to predict any negative effects at this stage	0	+	+	The MWDF seeks to link the minerals and waste sectors as far as possible. Policy will provide opportunities for liaison between the waste and minerals sectors.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A flexible approach may allow opportunities for new technologies to be developed.	Less certainly may discourage operators from investigating new technologies prior to applications.	0	+	+	This option provides opportunities to explore the commercial opportunities of new innovative technologies.	There is potential for this option to contribute to achieving this SA objective for Warwickshire.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	1
+	22
0	25
-	0
--	0

Key Issue 6: Brick Clay

7.52 Warwickshire like most areas has a long history of small scale brickworks which served the local market and made best use of the clays available. With the construction of the canal network and later railway infrastructure brick production become more centralised and the more suitable clays could be mass produced into bricks and exported around the country. Brick production in Warwickshire is now centred on one large brickworks at Kingsbury which supplies local, national and international markets. The site is currently operated by Baggeridge Brick plc and had an annual production of around 64 million items (bricks, pavers, tiles etc) in 2005.

7.53 MPS1 makes specific reference to Brick Clay in Annex 2 and states that the Government's national policy objectives which can be summarised as –

- Maintaining and enhancing the diversity of brick clay by making appropriate provision for supply in mineral planning authorities (MPA's) local development documents
- To provide and make available brick clays at a level that reflects the high initial investment in, and high levels of capitol expenditure required to maintain and improve, new and existing brick-making plant and equipment
- To safeguard and where necessary, stockpile supplies of clays, especially specific "premium" brick clays such as those from the Etruria Formation and fireclay

The Issues and Options Consultation recognised that with the publication of the Annex to MPS1 addressing Brick Clay, then the profile of this mineral resource was being raised.

The consultation asked :

The Minerals Development Framework will recognise the importance of sustainable use of brick clay in its policies but how should it plan for any future extraction.

The provided options were;

Option A: *Proven and economically viable deposits of brick clay should be allocated in the plan as Preferred Areas of extraction and include specific policies relating to Brick Clay.*

Option B: *Areas of proven brick clay reserves should be designated Mineral Safeguard Areas and include specific policies relating to Brick Clay.*

Option C: *Mineral Consultation Areas should be drawn around all areas where there are either proven or potential reserves of brick clay and include specific policies relating to Brick Clay.*

Option D: *Although the prudent use of brick clay resources should be encouraged there should be no specific measures to safeguard this resource.*

Following the Issues and Options consultation the preferred option was A. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option A

Proven and economically viable deposits of brick clay should be allocated in the plan as Preferred Areas of extraction and the MDF should include specific policies relating to Brick Clay.

7.54 **Reasoning**

The majority of consultees favoured option A, which would encourage the inclusion of allocated areas for extraction of brick clay and insure that the MDF would include a policy relating directly with any proposal for brick clay extraction. Following the theme of planning for the sustainable use of minerals and recognising the importance of brick clay the MDF should look to include potential clay resources in Mineral Consultation Areas to prevent sterilisation.

7.55 The Annex to MPS1 on brick clay specifies that new and existing brick manufacturing plants should have permitted reserves capable of supporting 25 years of production so as to allow for plant improvements and maintenance. The Kingsbury Brickworks has a current reserve of around 20 years so will need to look to securing more reserves over the time period of the MDF. With proposals necessary to secure the long term future of the Brickworks then the allocation of acceptable sites is the prudent way in which the MDF can plan for future brick clay extraction.

7.56 MPS1 states that it would be generally desirable that brick clay should be extracted as close as practicable to the brickworks that it is to supply then MPA's should initially consider the potential for extraction of brick clay close to the works and the potential for extensions to existing operations to maintain adequate long term supplies. There is the potential to investigate further extraction of Etruria Marl at the Kingsbury site as well as other potential clay formations of Mudstones of Shales.

Policy Principle 14 : Brick Clay

The allocation of sites for the supply of Brick Clay will be encouraged with priority given to extensions and adjacent areas to the existing brickworks at Kingsbury.

Proposals for clay extraction in areas outside of allocated areas for the supply to the brick manufacturing industry or for other purposes will be judged on the need for the material and the potential impacts its extraction will have.

Potential clay resources will be identified where possible through further consultation and included in Mineral Consultation Areas where appropriate.

This policy principal is in accordance with general policy principal encouraging the extension to existing mineral sites where environmentally acceptable.

Consultation Questions

Question 30:	Do you agree with the Preferred Option for Key Issue 6 – Brick Clay?
Question 31:	Do you agree with the Policy Principle 14 relating to Brick Clay?
Question 32:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 6?

Table 9: SA of Preferred Option : Key Issue 6 Brick Clay

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	No impact in the short term. A proactive approach will allow for enhancement of biodiversity in the medium and long term	No negative impact in the long term. Any impact will depend on site location.	0	-	+/+	The beneficial effects will be realised in the medium term and the long term through phased restoration The majority of SSSIs in Warwickshire are former minerals workings.	Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	No impact in the short term. A proactive approach will allow for enhancement of water resources in the medium and long term, which could lead to an improvement.	No impact in the long term. Any impact will depend on site location. Water resources will to be protected ad enhanced where possible.	0	-	+/+	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	Allocating sites will allow for early flood risk assessments which will improve flood risk management.	Any impact on flood risk will depend on the site.	0	-	+/+	Allocation can take in to account issues raised in a strategic flood risk assessment.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Prudent site selection will serve to enhance the environment as well as protect human health.	There will be environmental impacts with any operation with regard to issues such as dust and traffic. These will be site specific. Potential effects should be minimised at application stage.	0	-	+/+	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There will be short term and medium term development impacts.	0	-	+/+	Allocation of sites allows for early consultation between developers and local communities. This can enable a long term solution for the right type of restoration in the right locality tailored to the particular landscape or townscape. There is a potential to use detailed Landscape Character Assessments to inform this.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Allocation of sites will allow for more detailed investigation at an early stage and provide more certainty for all stakeholders.	Some archaeological resources could be compromised because allocated sites have a presumption in favour of development.	0	-	+/+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Allocation of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	Some degradation of soil is possible but this option will not necessarily have an effect on the objective.	0	-	+/+	Top soil can be stored and reused in the medium term and long term.	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.
8	To preserve and protect geological features and promote geological conservation	Allocation of sites will allow for more detailed investigation at an early stage. Extraction can expose geological features which could be studied and potentially preserved.	Some features could possibly be lost but this option will not necessarily have an effect on the objective.	0	-	+/+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	Allocation could facilitate planning for increased energy efficiency on minerals sites.	Extraction by its nature will not reduce the use of carbon but should seek to promote the delivery of energy efficiency	0	-	-	CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Allocation of sustainable sites will help to reduce consumption of natural resources	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective	0	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
12	Enfranchise the community in improving the local environment	Site allocation will give more certainty of development allowing the community to have a greater input from the start.	It is not possible to predict any negative effects at this stage	+	+	+	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	0	++	++	It is likely that this option would contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	Policy will provide more certainty of development opportunities for liaison between the waste and minerals sectors.	It is not possible to predict any negative effects at this stage	0	0	+	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A proactive approach can increase investment in new technologies.	The location and nature of the site may limit the type of technology possible.	0	0	+	Certainty of development. Provides more opportunities to explore the commercial opportunities of new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	10
+	5
0	21
-	12
--	0

Key Issue 7: Building and Restoration Stone

7.57 Local stone has historically been used to varying degree in all parts of Warwickshire. The castles of Warwick and Kenilworth, the stone villages in the south and most parish churches have all been constructed with local limestone and sandstone outcropping in the county. Only one stone quarry is in operation now in the county which currently extracts the Ironstone from near Edgehill.

7.58 MPS1 has an Annex 3 entitled Natural Building and Roofing Stone which is a recognition of the growing importance of this type of building material. The annex relates to mineral workings producing natural building or roofing stone either as a sole operation or as a by-product of extraction. The Annex gives guidance for policies for the provision of natural stone as well as information on the particular planning considerations which should be take into account for operations of this nature. The Annex promotes the active safeguarding of known and potential building stone reserves and also states that Building Stone quarries are often on a small scale when compared to other forms of mineral extraction. Building stone quarries may operate for many years due to their low output of material for specialised end uses.

7.59 Building stone is needed to repair old buildings and structures and also to provide material for new buildings and preserve local architectural distinctiveness in Warwickshire. Warwick Castle, Stoneleigh Abbey and many more historic buildings have been constructed from the local Triassic sandstones but there is no longer any local source of this material. Stone to repair the Castle and the many churches and buildings is now principally imported in from Staffordshire and Shropshire but the stone is not an exact match and this can present a problem once the restoration has been completed.

7.60 The issue of the demise of the local stone quarries in Warwickshire and the problem this was causing with regard to the restoration of particularly the sandstone buildings was examined in the Issues and Options Consultation.

The consultation asked the following questions:

What contribution should the Minerals Development Framework make to the supply of local building and conservation stone?

The options given for selection and comment were:

Option A: *Proven reserves of Building Stone should be allocated in the plan as Preferred Areas of extraction and include specific policies relating to the issue of Building Stone.*

Option B: *Areas of proven Building Stone reserves should be designated Mineral Safeguard Areas and include specific policies relating to the issue of Building Stone.*

Option C: *Mineral Consultation Areas should be drawn around all areas where there are either proven or potential reserves of Building Stone and include specific policies relating to this issue.*

Option D: *Although the importance of Building Stone resources in Warwickshire should be recognised there should be no specific measures to safeguard or plan for this mineral resource.*

Following the Issues and Options consultation the preferred option was C. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option C:

Mineral Consultation Areas should be drawn around all areas where there are either proven or potential reserves of Building Stone and the MDF should include specific policies relating to this issue.

7.61 **Reasoning**

Building and Restoration Stone has been identified as a particular area of importance from the consultation responses. The difference in scale of operations between a building stone quarry supplying small amounts of stone and a crushed aggregate producing quarry should be recognised.

Although the support is there for the allocation of sites for future extraction has widespread support the required information on the availability and location of suitable stone is very limited. The nature of the building stone market would be small scale and demand driven so the MDF should be able to promote proposals for the small scale extraction of local materials for specific projects.

Policy Principle 15 : Building and Restoration Stone

Proposals for the working of local materials and stone for building and restoration purposes will be encouraged where they would be:

- environmentally acceptable;
- demonstrate that the material would be used in order to preserve or enhance the character of historic buildings, the local distinctiveness of settlements and the historic environment of the original county area of Warwickshire;
- be in accordance with the provisions of the development plan.

Consultation Questions

Question 33:	Do you agree with the Preferred Option for Key Issue 7 – Building and Restoration Stone?
Question 34:	Do you agree with the Policy Principle 15 relating to Building and Restoration Stone?
Question 35:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 7?

Table 10: SA of Preferred Option : Key Issue 7 Building and Restoration Stone.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
2	Protect and improve water resources	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
3	Avoid, reduce and manage flood risk	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
4	To safeguard environmental quality in order to minimise potential impacts on community health	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
5	To conserve and enhance the character and quality of the County's landscape and townscapes	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
7	Protect soil resources	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
8	To preserve and protect geological features and promote geological conservation	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
9	To promote the delivery of energy efficiency and carbon reduction targets	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
10	Reduce consumption of natural resources	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
11	To promote adherence to the movement of waste up the waste hierarchy	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
12	Enfranchise the community in improving the local environment	Stakeholders will have an input in to the definition of MCAs	It is not possible to predict any negative effects at this stage	+	+	+/+	Communities will be consulted on the definition of MCAs though the MDF. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.
13	Improve accessibility to waste management services and facilities	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	As the policy avoids sterilisation and protects minerals resources, it contributes to this objective.	There are no predicted negative effects at this stage	+	+	+	It is likely that this option would contribute to sustainable economic development for Warwickshire.	
15	To explore linkages between the waste and minerals sectors	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	The effect on this objective would be neutral.	The effect on this objective would be neutral.	0	0	0	The minerals consultation areas are a device to prevent sterilisation of minerals resources and as such have little impact on the objective.	

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	1
+	5
0	42
-	0
--	0

Coal Production: Opencast and Deep Coal Mining.

7.62 Coal has been extracted from Warwickshire since Roman times with the exposed coal seams around the Nuneaton and Atherstone areas being exploited. The Coal seams which make up the Warwickshire Coal Field are exposed and near the surface in the north of the county but then dip sharply south in a broad sweep under Coventry, Kenilworth and eventually into Oxfordshire.

7.63 There remains the potential for opencast extraction in the county although there is no current extraction of coal using this method. One remaining underground colliery near Arley extracts from the Warwickshire thick seam from a depth of around 800m under the Corly Moor Area. There is extensive reserves of deep coal which could be exploited as either an extension to the existing operation or as a new Colliery.

7.64 The Governments Energy Review 2006 has made specific reference to coal production in England and recognised the importance coal will play in the future of energy supply in the UK. The report called for the setting up of a Coal Forum involving producers, coal fired generators and other interested parties to secure the long term future of coal generation and UK coal production.

7.65 It is clear from the report that coal-fired power generation continues to meet around one third of electricity demand on average and during last winter (2005/2006), in a response to high gas prices, it met about 50% of total demand.

7.66 The full implications of the energy review for coal production and power generation in the UK are still to be fully detailed but the preferred options and subsequent policy principles reflect that coal production will feature and possible grow in importance during the life time of the Minerals Development Framework.

7.67 The Issues and Options paper recognised that the importance of coal may increase over the plan period and should therefore form part of the Minerals Core Strategy consultation process. Two Issues where raised, one Opencast extraction, the other on Deep Mining operations.

Key Issue 8: Opencast Coal

7.68 The Issue raised with regards to Opencast Coal mining in the consultation document was:

There are potential reserves of coal which could be subject to open cast methods in the north of the county. How should these reserves be addressed in the Minerals Development Framework?

The options identified for selection and comment where:

Option A: *The Framework should seek to allocate areas of preferred extraction for the open cast extraction of coal where proven reserves have been identified and include policies be put in place to assess any application?*

Option B: *Areas of coal which have open cast potential should be safeguarded and policies be put in place to assess any application?*

Option C: *Mineral Consultation Areas of potential coal reserves and policies to assess any proposal for extraction should be contained in the plan?*

Option D: *Have no guidance on the siting of opencast operations or for the protection of shallow coal resources.*

Following the Issues and Options consultation the preferred option was B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B

Areas of Coal which have opencast potential should be safeguarded and policies be put in place to assess any application.

7.69 **Reasoning**

There was widespread support of coal as a future energy resource from the consultation responses and the growing importance of coal was recognised. There was some support in the consultation for the allocation of sites for opencast extraction but formally Safeguarding these specific areas has been considered sufficient at this time, whilst the full details of the 2006 Energy Review are developed by Government. There is as yet no guidance from government as to the amount of coal which needs to be produced from the UK mainland, but the situation will be closely monitored as the full impacts of the Energy Review are formed into national policies. The work of the Coal Forum which includes representatives from the DTI, Coal Mining Companies and Energy Producers will provide further information and guidance as to the role coal will play in the UK's energy market.

7.70 The Coal Authority has provided the Consultation map for Warwickshire from the former British Coal Opencast Executive that was last amended in 1987. This map details former workings, previously licensed sites and the outline of the exposed coalfield. This map will be used as a basis for Mineral Consultation Areas for Coal resources to protect future resources should they need to be assessed for future possible extraction.

7.71 The Council has been advised that there are possibly four sites within Warwickshire which have been sufficiently assessed as to suggest that a proposal for extraction could be received in the near future. These potential areas correspond to former British Coal Opencast licences in North Warwickshire which have since lapsed. The sites are located near Shuttington, Dordon and Polesworth.

Key Issue 9: Deep mining of Coal

7.72 Daw Mill Colliery near Arley in North Warwickshire is one of the last seven deep mines operating in the UK and currently is the largest producer of coal. It extracts around 3 million tonnes of coal from depths of around 750m – 900m and employs around 540 people. With estimated recoverable reserves standing at around 35 million tonnes the colliery has a projected lifespan of between 10-15 years. The coal extracted from Daw Mill is used in the domestic, industrial and power generation markets. The bulk of the material is taken by rail to the power stations at Drax (North Yorkshire) and Radcliffe (Nottinghamshire).

7.73 For Daw Mill to continue operations after it current reserves have been exhausted a new shaft would have to be sunk to supply ventilation and access new areas to the East and South East of Coventry. It would take an estimated 4 years to gain the necessary permissions, sink the new shaft and develop the new working face.

7.74 For the Development of a new mine the timescales involved would be around 6 to 8 years from the proposal to the face development and production at the earliest estimation. The cost of this could be around £500m and constitute a major financial investment. No potential sites have yet been discussed but deep mining for coal is possible with today's current mining methods in a large part of the south of the county and into Oxfordshire.

7.75 The Issues and Options document asked:

With the Government's energy review looking at all potential energy producing methods should the Minerals Development Framework seek to contain polices for any future proposal for the deep mining of Coal?

7.76 The issues identified for selection and comment were:

Option A: *The plan should seek to identify and allocate areas for future pit heads and the associated surface developments for future deep coal mining operations.*

Option B: *The plan should contain specific policies relating to any potential deep coal mining proposals.*

Option C: *Any application for deep new deep coal mining developments should be considered against existing National, Regional and Local Policies with no specific guidance contained in the Minerals Development Framework.*

Following the Issues and Options consultation the preferred option was B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B:

The Minerals Development Framework should contain specific policies relating to any future deep mining proposals.

7.77 **Reasoning**

The consultation was generally supportive of the need to address the issue of the deep mining of coal in the MDF recognising that it may become increasingly important for energy production in the UK. As the effects of the recent Energy Review begin to effect national policy it is clear that the Warwickshire MDF should be in a position to deal with the potential for new deep mine developments in the county.

From consultations from the Coal Authority, the DTI and UK Coal no sites for any potential future pit heads or associated shafts have been discussed so the allocation of preferred sites for the siting of such developments would be premature. However, it would be prudent in light of possible changes in national policy on coal extraction to produce policies in the MDF on proposals related to underground coal mining.

Policy Principle 16 : Future Coal Extraction in Warwickshire

Planning Permission will be granted for coal extraction, colliery spoil disposal and associated workings only when –

- The proposal is environmentally acceptable or its impacts can be made so, by mitigation measures, planning conditions and obligations.
- The impacts, possible harm to the environment or loss of designated sites or landscapes caused by the development is offset by the national need for coal and associated local and community benefits.

Policy Principle 17 : Proposals for Coal Developments Including New Deep and Opencast Coal Mines, and additional Shafts for existing underground workings and ongoing operations.

Applications for new Deep Coal Mines, extensions to existing mines or applications for the sinking of shafts to support existing underground operations should include a full assessment and detailed mitigation measures where appropriate on the following issues

1 The National need and requirement justifying the exploitation of the coal resource

2 The effects on local communities

3 The potential effects of subsidence associated with the underground working of coal

4 The impact on biodiversity

5 The predicted social-economic effects and benefits

6 Noise and dust.

7 The visual impact of the all surface and ancillary developments

8 The treatment of surface and subsurface waters and pollution prevention measures which will be in place

9 The disposal of colliery waste

Sterilisation

7.78 Areas in Warwickshire which have the potential for opencast coal extraction are restricted to the north of the county where the coal measures are at or near the surface. Much of the available coal in Nuneaton and North Warwickshire has been either extracted or sterilised by other developments.

7.79 In some areas there remains the potential for opencast operations and where these have been identified, they will be safeguarded to avoid sterilisation by other land uses. At some specific sites it may be necessary remove coal deposits for land stability reasons where previous shallow workings could seriously affect other developments.

7.80 It may also be possible to permit the extraction of coal by opencast methods to avoid sterilisation of resources prior to other developments taking place. These sites may not be viable as stand alone opencast operations due to environmental constraints but their removal as part of the main development would avoid unnecessary sterilisation.

Policy Principle 18 : Sterilisation of Shallow Coal Reserves

Proposals for Coal extraction which avoids sterilisation of reserves or is necessary for other developments to take place will be encouraged as long as they are environmentally acceptable and will not cause harmful and unacceptable additional impacts.

Opencast Coal - Fireclays and associated minerals

7.81 Fire Clay deposits are often associated with coal seams and when opencast methods are used to exploit seams this valuable mineral reserve may be exposed and extracted.

7.82 Mineral Planning Guidance 3 recommends that policies should make provision for proposals where extraction of coal from a site would facilitate the efficient and economic working of other mineral deposits on that site in an environmentally acceptable way. This avoids economic minerals being sterilised and promotes sustainable mineral extraction.

Policy Principle 19 : Fireclay and Associated Minerals with Opencast Coal Extraction

Where proposals for Opencast Coal extraction is acceptable the recovery of fireclays and other secondary minerals will be encouraged where this does not result in any unacceptable environmental impact.

Consultation Questions

Question 36:	Do you agree with the Preferred Option for Key Issue 8 – Opencast Coal?
Question 37:	Do you agree with the Preferred Option for Key Issue 9 - Deep Mining of Coal?
Question 38:	Do you agree with Policy Principle 16 relating to Future Coal Extraction in Warwickshire?
Question 39:	Do you agree with Policy Principle 17 relating to Proposals for New Coal Developments?
Question 40:	Do you agree with Policy Principle 18 relating to Sterilisation of Shallow Coal Reserves?
Question 41:	Do you agree with Policy Principle 19 relating to Fireclay and Associated Minerals with Opencast Coal Extraction?
Question 42:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 8?
Question 43:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 9?

Table 11: SA of Preferred Option : Key Issue 8 OPENCAST AND DEEP COAL MINING

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Safeguarding coal reserves will enable habitats to develop until detailed survey work is undertaken.	There are no predicted negative effects	0	0	+	Protection from development will benefit habitats in the short term. Survey work will identify areas which could possibly be retained in the mineral working.	Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	There would be no negative impact in the short term.	There are no predicted negative effects	0	0	+	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	Safeguarding would allow time for a detailed flood risk assessment	There are no predicted negative effects.	0	0	+	Mineral developments may help in the long term alleviation of flood risk in some areas by the creation of balancing lakes/ponds.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Environmental quality would be safeguarded until any potential future development was carried out.	There are no predicted negative effects	0	0	+	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There are no predicted negative effects	0	0	+	Safeguarding of sites allows for early consultation between developers and local communities. This can enable a long term solution for the right type of restoration in the right locality tailored to the particular landscape or townscape. There is a potential to use detailed Landscape Character Assessments to inform this.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Such sites would be protected through safeguarding until surveys can be undertaken	There are no predicted negative effects	0	0	+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Safeguarding of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	There are no predicted negative effects	0	0	+	Top soil can be stored and reused in the medium term and long term if development takes place following safeguarding.	
8	To preserve and protect geological features and promote geological conservation	Such sites would be protected through safeguarding until surveys can be undertaken	There are no predicted negative effects	0	0	+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	Safeguarding would have no effect in the short term	This option will not necessarily have an impact on the objective. If development takes place in the long term safeguarding will assist development and thereby the use of resources.	-	-	-	Extraction by its nature consumes finite resources. CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Safeguarding f sustainable sites will help to reduce consumption of natural resources.	This option will not necessarily have an impact on the objective. If development takes place in the long term safeguarding will assist development and thereby the use of natural resources.	-	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
12	Enfranchise the community in improving the local environment	Safeguarding will give more certainty of development allowing the community to have a greater input from the start.	It is not possible to predict any negative effects at this stage	+	+	+	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	0	+	+	It is likely that this option would contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	It is not possible to predict any negative effects at this stage	0	0	0	Policy will provide opportunities for liaison between the waste and minerals sectors.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Safeguarding could allow time for innovative technologies to be developed	The location and nature of the site may limit the type of technology possible	0	-	-	Designation of safeguarded areas provides developers with more certainty of development allowing greater flexibility to explore opportunities for using new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	0
+	13
0	27
-	8
--	0

Table 12: SA of Preferred Option : Key Issue 9 Deep Mining of Coal

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	No impact in the short term. A proactive approach will allow for enhancement of biodiversity in the medium and long term.	No negative impact in the long term. Any impact will depend on site location. The biodiversity resources will be protected and enhanced where possible	0	0	+	The beneficial effects will be realised in the medium term and the long term through phased restoration. The majority of SSSIs in Warwickshire are former minerals workings.	Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	No impact in the short term. A proactive approach will allow for enhancement of water resources in the medium and long term, which could lead to an improvement.	No impact in the long term. Any impact will depend on site location. Water resources will to be protected ad enhanced where possible.	0	0	+	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	It is likely that flood risk will be minimised as far as possible.	No negative effects can be predicted at this stage.	0	0	+	Mineral developments may help in the long term alleviation of flood risk in some areas by the creation of balancing lakes/ponds.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Prudent site selection will serve to enhance the environment as well as protect human health.	There will be environmental impacts with any operation with regard to issues such as dust and traffic. These will be site specific. Potential effects should be minimised at application stage.	0	0	+	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There will be short term and medium term development impacts.	0	0	+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Safeguarding of sites will allow for detailed investigation at an early stage and greater public involvement in the conservation and enhancement of the county's landscapes.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Policies will allow for more detailed investigation at an early stage and provide more certainty for all stakeholders.	Some archaeological resources could be compromised because allocated sites have a presumption in favour of development.	0	0	+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Safeguarding of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	Some degradation of soil is possible but this option will not necessarily have an effect on the objective.	0	0	+	Top soil can be stored and reused in the medium term and long term.	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.
8	To preserve and protect geological features and promote geological conservation	Allocation of sites will allow for more detailed investigation at an early stage. Extraction can expose geological features which could be studied and potentially preserved.	Some features could possibly be lost but this option will not necessarily have an effect on the objective.	0	0	+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	In the short term the effects would be neutral. Such sites would be protected through safeguarding until surveys	Extraction by its nature will not reduce the use of carbon but should seek to promote the delivery of energy efficiency	0	-	-	CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Safeguarding would have no effect in the short term	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective	0	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
12	Enfranchise the community in improving the local environment	Safeguarding will allow time for further survey work to be undertaken and the community to have a greater input from the start.	It is not possible to predict any negative effects at this stage	+	+	++	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	0	0	0	It is likely that this option would contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	It is not possible to predict any negative effects at this stage	0	0	+	Policy will provide opportunities for liaison between the waste and minerals sectors.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A proactive approach can increase investment in new technologies.	The location and nature of the site may limit the type of technology possible.	0	0	+	Time prior to the development (as in the case of safeguarded sites) provides more opportunities to explore the commercial opportunities of new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	1
+	12
0	31
-	4
--	0

Key Issue 10: Raw Materials for the Manufacture of Cement

7.83 Cement has been produced in Warwickshire for more than 150 years and was traditionally based around the Southam and Rugby areas in the east of the county. The raw material for this industry has been the Jurassic Blue and White Lias Formations which provided the required limestone and shale for the manufacture of cement.

7.84 The one remaining manufacturing plant in the county is situated in Rugby and produces around 1.2 million tonnes of cement. The plant was extensively modernised by Rugby Cement and later RMC in 1999 which coincided with the closure of its sister operation at Southam. The plant, which due to its location, proximity to good transport infrastructure and large cement output is now of national importance.

7.85 The Rugby Cement Works is supplied with shale and clay from two operation quarries, one in Southam and the other adjacent to the plant itself. Due to the geochemical nature of the local limestone chalk in the form of a slurry is piped up from Kensworth Quarry in Bedfordshire in order to produce the cement. The plant at Rugby has an expected lifespan of 30-40 years and has permitted reserves of local material of approximately 40 years after a recent application for an extension to Southam Quarry was approved. The Kensworth site has currently sufficient permitted reserves of chalk to continue supplying Rugby for over 30 years with its permission expiring in 2042.

7.86 National Minerals Planning Guidance 10 (MPG10): Provision of Raw Material to the Cement Industry provides advice to mineral planning authorities on the exercise of planning controls over the provision of raw materials to the cement industry. Contained in this guidance is advice on Landbank Polices for cement works which should take into account the scale of capitol investment in the plant but should aim to keep the permitted reserves of the feedstock minerals at 15 years. Where new Kilns or whole new plants have been constructed then the landbank should reflect the level of investment and be 25 years of the required minerals. MPG10 also states that Development Plans should normally allocate sufficient land for mineral extraction for cement manufacture to provide maintenance of landbanks for cement works over the plan period.

7.87 The Issues and Options Paper consulted on how the provision of minerals for the continued cement production in Warwickshire should be addressed.

With a large area of suitable raw material still available in the county and a cement kiln currently producing 10% of the UK's cement, how should the Minerals Development Framework plan for the raw materials for cement production".

The suggested options for selection and comment were:

Option A: *Create Mineral Safeguard Areas for sites of proven reserves of suitable material and write specific policies to assess any proposals for future applications for extraction.*

Option B: *Create Mineral Consultation Areas to protect potential resources and draw up policies to assess any future proposals for extraction.*

Option C: *Have policies to assess any proposal for future extraction but have no guidance on the siting or protection of potential resources.*

Option D: *Any application for the extraction of minerals for cement production should be considered against existing National, Regional and Local Policies with no specific guidance contained in the Minerals Development Framework*

Following the Issues and Options consultation the preferred option was B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option A:

The MDF should create Safeguard Areas for sites of proven reserves of suitable minerals for cement manufacture and contain specific policies for future proposals for extraction.

7.88 **Reasoning**

The consultation generally supported a more proactive approach to the provision of raw materials for cement but with current reserves at over 30 years there does not appear to be the need for the allocation of specific sites to maintain the landbank of available material over the plan period. However, one of the issues in the consultation paper did suggest the creation of specific Safeguarded Sites for areas of proven reserves of material and which are likely to come forward at some point in the future. Policies for assessing any application for mineral extraction for the raw materials for cement would also be necessary.

7.89 With a possible increase in the demand for cement due to major infrastructure projects and house building growth planned for Warwickshire and the surrounding area applications for new reserves may be received in response to increased production reducing landbanks at a faster rate.

7.90 It should also be noted that possible hydrological, geological and geochemical conditions at the recent Southam extension could cut its permitted reserves of the permitted area from 16 years to 12 years. The remaining reserves are situated east of the current area of extraction and are separated from this area by the A426.

7.91 From studying the available evidence and from considering the responses in the Issues and Options Consultation the preferred option would be to Safeguard Sites which are likely to be subject to applications either in or just outside the plan period. This will safeguard the required reserves to maintain production at the cement plant depending on whatever fluctuations in the cement market and provide local communities with clear notice that mineral extraction of the required shale and clay is a possibility.

Policy Principle 20 : Raw Materials for Cement Manufacture

To provide flexibility and protection for minerals for the manufacture of cement in Warwickshire and supply local communities with full knowledge of possible future extraction of such materials the Minerals Core Strategy should seek to provide Safeguarded sites for likely reserves and put in place specific policies for the extraction of the raw materials of cement.

Consultation Questions

Question 44:	Do you agree with the Preferred Option to Key Issue 10 - Raw Materials for the Manufacture of Cement?
Question 45:	Do you agree with the Policy Principle 20 relating to Raw Materials for Cement Manufacture?
Question 46:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 10?

Table 13: SA of Preferred Option : Key Issue 10 Raw Materials for the Manufacture of Cement.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Safeguarding raw materials for cement will enable habitats to develop until detailed survey work is carried out.	There are no predicted negative effects	0	+	+	Protection from development will benefit habitats in the short term. Survey work will identify areas which could possibly be retained in the future in mineral workings.	Care should be taken to preserve the local nature reserves (LNR), one site of international importance the Ensor's pool SAC, Country Parks, Sites of Special Scientific Interest (SSSIs), part of the Cotswolds AONB.
2	Protect and improve water resources	There would be no impacts in the short term.	There are no predicted negative effects	0	+	+	Water resources will be protected in the short and medium term. There is the potential for the improvement of existing resources in the long term.	Mineral workings should comply with the Water Framework Directive.
3	Avoid, reduce and manage flood risk	Safeguarding would allow time for a detailed flood risk assessment	There are no predicted negative effects.	0	+	+	Mineral developments may help in the long term alleviation of flood risk in some areas by the creation of balancing lakes/ponds.	Selected sites will need to demonstrate there will be no adverse effect through a Flood Risk Assessment. Development should accord with provisions of PPS 25.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Environmental quality would be safeguarded until any potential future development was carried out.	There are no predicted negative effects.	0	+	+	After site selection applications would still be assessed for their environmental impacts against stringent criteria set out in the MDF.	Consultation will seek to incorporate any concerns the public may have with additional sites being developed. Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A proactive approach will allow for consideration of landscapes and townscapes in the medium and long term.	There are no predicted negative effects	0	+	+	Safeguarding of sites allows for early consultation between developers and local communities. This can enable a long term solution for the right type of restoration in the right locality tailored to the particular landscape or townscape. There is a potential to use detailed Landscape Character Assessments to inform this.	Site selection is key in ensuring that impacts to the landscape and townscape are minimised. Landscape character can be mitigated by undertaking landscape character assessments.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Such sites would be protected through safeguarding until surveys can be undertaken	There are no predicted negative effects	0	+	+	Mineral workings provide opportunities to explore Warwickshire's diverse heritage. Safeguarding of sites will allow for detailed investigation at an early stage and greater public involvement in the protection and enhancement of cultural assets.	Development on allocated sites should accord with provisions in PPG 15 and PPG16.
7	Protect soil resources	Knowledge of site location will allow for assessment of soil resources. Allocation could minimise the loss of high quality agricultural land	There are no predicted negative effects	0	+	+	Top soil can be stored and reused in the medium term and long term if development takes place following safeguarding.	
8	To preserve and protect geological features and promote geological conservation	Such sites would be protected through safeguarding until surveys can be undertaken	There are no predicted negative effects	0	+	+	Mineral workings provide opportunities to discover geological features in Warwickshire. Allocation of sites will allow for detailed investigation at an early stage resulting in the protection and enhancement of geological features.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible.
9	To promote the delivery of energy efficiency and carbon reduction targets	Safeguarding would have no effect in the short term	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective if developme nt doesn't take place	0	-	-	CO2 emissions from extraction process will be felt on a global scale.	It is important to promote energy efficiency and carbon reduction on minerals sites.
10	Reduce consumption of natural resources	Safeguarding of sites would save resources in the short term.	Extraction by its nature consumes finite resources but this option will not necessarily have an impact on the objective if developme nt does not take place	0	-	-	We will seek to ensure that allocated minerals sites will be developed in a sustainable way.	Good restoration of mineral workings can provide opportunities to create new natural resources such as woodland or areas of biodiversity enhancement.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case.	A neutral impact might be expected in this case.	0	0	0	The Preferred Option will allow a framework for this objective to be achieved.	
12	Enfranchise the community in improving the local environment	Safeguarding will give the community a longer timescale to	It is not possible to predict any negative effects at this stage	+	+	+/+	Communities will be consulted on the Minerals Allocations DPD. Any concerns which they may have will be addressed, thereby creating opportunities to improve the local environment.	Community involvement through early consultation should be ensured.
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case.	There are no predicted negative effects at this stage.	0	0	0	The issue and objective do not appear to be strongly linked	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	This option allows for a proactive approach. Knowledge of site locations gives time for detailed assessment of sites.	There are no predicted negative effects at this stage	0	+	+	It is likely that this option could contribute to sustainable economic development for Warwickshire.	With careful site selection economic development can be achieved while protecting the environment and community and maintaining a steady supply of minerals.
15	To explore linkages between the waste and minerals sectors	There is potential for waste facilities to be incorporated in to minerals workings where appropriate.	It is not possible to predict any negative effects at this stage	0	+	U	Policy will provide opportunities for liaison between the waste and minerals sectors.	Co-location of facilities may reduce the overall environmental impact.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Safeguarding could allow time for innovative technologies to be developed	The location and nature of the site may limit the type of technology possible.	0	++	++	Designation of safeguarded areas provides developers with more certainty of development allowing greater flexibility to explore opportunities for using new innovative technologies.	It is not possible to predict the exact nature of new technologies at this stage – however the MDF should provide the framework for such developments to be implemented where possible.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	3
+	21
0	19
-	4
U	1

Key Issue 11: Onshore Oil, Gas and Geothermal Energy.

7.92 Warwickshire has little potential for hydrocarbon production and it is not expected that there will be economic interest for oil or natural gas exploration or production within the plan period. The last exploration drilling for oil reserves in Warwickshire was undertaken in 2003 near Wood End, Kingsbury but the presence of hydrocarbons was not discovered. The exploration licences in North Warwickshire have now lapsed and there is no indication that further exploration of this nature will forth-coming over the plan period.

Geothermal

7.93 There is the potential for a Geothermal operation in the county which would drill deep into the ground and exploit the warmer underground groundwater contained in deep aquifers. The geological features in the county may lend themselves to this form of energy production but there is little direct evidence where such operations would be sited for the best chance of success. Warwickshire has no deep intrusion granites which are heating the groundwater as in the cases of Cornwall and Weardale, County Durham where geothermal energy production is currently taking place. Whether the exploitation of deep groundwater's for heat could be economically possible in the county is not yet fully known but technology in this area continues to be refined.

Ground Source Heat Pumps (GSHP)

7.94 The use Ground Source Heat Pumps is becoming more common in new developments and should be encouraged in new or replacement developments. Planning permission for GSHP's would not likely be the responsibility of the Mineral Planning Authority but he use of such technologies can be promoted as has been the case in the construction of a large secondary school in Leamington Spa.

Gas from Coal

- **Coal Bed Methane (CBM)** Methane and other gases generated in the coal formation process can become contained within coal seems in pore spaces in the rock or adsorbed onto the coal itself. These gases have the generic name Coal Bed Methane (CBM) although they can also include ethane, carbon dioxide and monoxide, nitrogen and helium. During coal mining or the other disturbances to the coal seems these gases can become released from the coal sometimes in large quantities. This gas is a environmental hazard and a major source of greenhouse gases but can be trapped and used as a potential energy source. CBM can be extracted from unworked coal seems by boreholes which drill into the coal fracturing it and allowing the methane to be released. The boreholes can then drain the methane from the rocks for electricity generation and other industrial processes.
- **Coal Mine Methane (CMM) and Abandoned Mine Methane (AMM)** Methane has to be ventilated out of working coal mines to avoid the risk of explosions or risks to human health and so this presents an opportunity to avoid it being released into the atmosphere. Once coal mining has ceased and methane will continue to be released from the remaining unworked coal long after extraction has ceased. This methane can present an environmental hazard but there also the chance to tap, store and use this gas.
- **Underground Coal Gasification (UCG)** Underground is the *in situ* conversion of coal into combustible gases methane, carbon monoxide and hydrogen. This technology involves the pumping of steam (or water) mixed with oxygen (air) into the coal seam by boreholes which reduces the coal to the combustible gases which can be extracted by another borehole. This method is currently used in other areas of the world and is still undergoing trials in the UK.

- **Underground Storage of Natural Gas** The need for underground storage facilities in the UK has been highlighted in the Government's energy review. Demand for gas fluctuates on a daily and seasonal basis and with the UK being increasing dependant on imported gas the need to store reserve capacity for periods of high demand or restricted supply is becoming increasing important.

  Storage facilities must accommodate large volumes of gas safely, and be capable of being recharged or drawn upon quickly to meet demand fluctuations. Gas can be stored in porous rock such as depleted oil and gas fields, aquifers or in large natural or man made underground cavities. These would include old mine workings in the Warwickshire Coal Field as well as the natural sandstones found in the county.

  The Underground storage of natural gas has now been included in MPS1 as a direct response to the problem of the security of supply of natural gas.

The consultation asked:

How should the Minerals Development Framework recognise that new energy production technologies may be possible in the county?

The consultation suggested the following options for selection and comment:

Option A: *Should the Minerals Development Framework seek to identify areas for potential new coal technologies and other possible sources of energy if the opportunity exists and assess the environmental constraints within these areas?*

Option B: *Should the Minerals Development Framework provide specific policies for the determination of applications for new coal technologies and other potential geothermal related developments?*

Option C: *Consider any application for such developments on a individual basis, assessing it against the provisions of the polices in the Minerals Development Framework and other relevant planning policies and guidance.*

Following the Issues and Options consultation the preferred option was an amended version of B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B (amended)

The Minerals Development Framework should provide a policy for the determination of applications from new coal technologies, geothermal developments and underground storage facilities for natural gas.

Reasoning

7.95 With the inclusion of new coal technologies and underground gas storage in MPS1 this is a clear sign that the government is promoting these sources of energy production for the future. The plan should therefore be in a position to address any such application should proposals for these types of development be made to the County. Warwickshire has large reserves of un-worked coal which could be developed in any manner of ways. These have previously been described although current evidence suggests the level of natural methane contain in the seems in Warwickshire is quite low so the will be little opportunity for Coal Bed Methane production in Warwickshire.

7.96 The consultee responses tended to agree that full consultation on new proposals was essential, especially in respect of this issue because these types of technologies were still evolving and therefore it would be difficult to predict their viability or the impacts associated with them. Due to the lack of information regarding the potential siting of geothermal, coal gas production and natural gas storage developments Option B was the preferred option but C was possibly the most practicable as these are new and advancing technologies.

Policy Principle 21 : Energy Production and Gas Storage Facilities

The Minerals Development Framework Core Strategy will seek to encourage proposals for Renewable Energy Schemes such as Geothermal and New Coal Technologies but ensure that such proposals do not present any unacceptable environmental impacts and do not cause pollution or present an unacceptable hazard to human health.

Also, the Minerals Development Framework should have policies in place to ensure any applications for the underground storage of natural gas are in the national interest and pose no threat to the environment and human health.

Consultation Questions

Question 47:	Do you agree with the Preferred Option to Key Issue 11 - Onshore Oil, Gas and Geothermal Energy?
Question 48:	Do you agree with the Policy Principle 21 relating to Onshore Oil, Gas and Geothermal Energy?
Question 49:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 11?

Table 14: SA of Preferred Option Issue 11 Onshore Oil

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	A flexible approach which is non-prescriptive could benefit biodiversity in the long term.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
2	Protect and improve water resources	A flexible approach which is non prescriptive could hopefully enable water resources to be protected in the long term.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
3	Avoid, reduce and manage flood risk	A flexible approach which is non prescriptive should cater for flood risk in the long term.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
4	To safeguard environmental quality in order to minimise potential impacts on community health	A flexible approach which is non prescriptive will help to safeguard environmental quality and benefit community health.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
5	To conserve and enhance the character and quality of the County's landscape and townscapes	A flexible approach which is non prescriptive will conserve and enhance the county's landscape and townscapes.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	A flexible approach which is non prescriptive will benefit archaeology in the long term.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
7	Protect soil resources	A flexible approach which is non prescriptive will help to protect soil resources in the long term.	It is not possible to predict a negative effect at this stage	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
8	To preserve and protect geological features and promote geological conservation	A flexible approach which is non prescriptive will geological conservation in the long term.	It is not possible to predict a negative effect in the short term. Adverse effects may occur in the future but this is unclear.	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
9	To promote the delivery of energy efficiency and carbon reduction targets	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect in the short term. Adverse effects may occur in the future but this is unclear.	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
10	Reduce consumption of natural resources	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect in the short term.	0	U	U	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
11	To promote adherence to the movement of waste up the waste hierarchy	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect at this stage	0	0	0	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
12	Enfranchise the community in improving the local environment	Policies set out clear parameters for development which can help community participation in development issues	It is not possible to predict a negative effect at this stage	0	+	+	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
13	Improve accessibility to waste management services and facilities	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect at this stage	0	0	0	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect at this stage	0	+	+	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
15	To explore linkages between the waste and minerals sectors	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect at this stage	0	++	+	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	A flexible approach which is non prescriptive will geological conservation in the long term	It is not possible to predict a negative effect at this stage	0	++	++	For these minerals there is no information on potential sites as yet. By using general policies and assessing on a site by site basis there is flexibility without being too prescriptive in terms of particular types of site.	

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	3
+	5
0	20
-	0
U	20

Key Issue 12: Transport

7.97 With most mineral operations there will always be the need for the bulk transport of minerals from the point of extraction to its final destination. The most common method of transporting aggregates and other bulk materials around and out of the Warwickshire is by road. The resulting large volumes of associated Heavy Goods Vehicles using the road network can have a negative impact on the local environment. The use of road vehicles will also increase the carbon footprint of mineral extraction so there is a pressure for the minerals industry to look for alternative modes of transport.

Government Guidance seeks to promote the use of rail and inland waterways to reduce the environmental impact of the transportation of minerals. It is clear in Warwickshire though that opportunities for the use of railways, canals and other watercourses are very limited and currently only coal mined at Daw Mill Colliery or imported to the Rugby Cement works utilises the rail network.

The question raised in the Issues and Options Paper was:

How should the Minerals Development Framework address the issue of sustainable transport for future mineral extraction and processing sites

The options identified for selection and comment were:

Option A: *Concentrate where possible the permitting of new mineral developments predominately around the existing principal road network with improvements to access routes where necessary.*

Option B: *Encourage future developments to seek to use alternative transport solutions to road use including canals, waterways and rail, providing it is both practical and economically feasible.*

Following the Issues and Options consultation the preferred option was a combination of the two options, Option C. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option C

The use of alternatives to road transport will be encouraged but in recognising that where the transport of minerals will be by HGV's, sites should be situated in close proximity to and/or have suitable access to the principal road network.

7.98 **Reasoning**

From the consultation responses there was general support for the use of rail and waterways for the transportation of minerals but also an acceptance that for the majority of mineral developments in Warwickshire such alternatives would be unfeasible.

Where HGV's are going to be widely used developers must expect to enter in Routing Agreements or Road Improvement Schemes to reduce the impact of traffic movements and ensure that the access route linking the development to the principal road network is of the required standard of the Highways Authority. The preferred option was therefore a combination of original consultation options promoting the use of alternative modes of bulk transport but accepting that HGV's on the road networks would be the main form of transportation.

Policy Principle 22 : Transport

Proposals for new mineral developments which will have to be accompanied by a Traffic Impact Assessment and demonstrate that alternative forms of transport have been given full consideration.

Question 50:	Do you agree with the Preferred Option to Key Issue 12 - Transport?
Question 51:	Do you agree with the Policy Principle 22 relating to Transport?
Question 52:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 12?

Table 15 SA of Preferred Option : Key Issue 12: Transport

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Biodiversity will be protected if existing main roads are used for mineral transportation. Rail and water routes could also benefit biodiversity in the long term.	Not always possible to link directly to a main road. Therefore minor routes may need to be used in some cases. Road network may have to be upgraded	0	+	++	All transport routes have the potential to allow habitat creation within the corridor whether rail, water or road.	Considerable scope for improvements in habitat creation. Enhancement necessary if upgrading road network.
2	Protect and improve water resources	Water resources should not be affected by transport issues provided there is good site planning	In very rare cases there may be no option but to disrupt a water course. Could be adverse impact in the short term.	0	+	++	If water courses are disrupted there must be effective mitigation to ensure that there is no long term impact.	If a stream has to be culverted, planting might be required to mitigate effectively.
3	Avoid, reduce and manage flood risk	Flood risk should be identified at pre planning application stage	Hard surfacing creates faster run off and potential minor risk of local flooding.	0	+	++	Flood risk issues will be explored via regional flood risk appraisals and local flood risk assessments.	Good drainage should be provided where new routes are constructed and on existing routes.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Use of existing principal road network will avoid using unsuitable minor roads which could impact on community health.	Some use of minor roads to link quarries with the principal road network may be unavoidable.	0	+	++	Proposals should seek to ensure that transportation of minerals avoids minor roads and villages.	Every application should provide a Traffic Impact Assessment to ensure adverse effects can be mitigated.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Use of existing principal road network will avoid using unsuitable minor roads which could prevent development on Greenfield land.	Some use of minor roads to link quarries with the principal road network may be unavoidable	0	+	++	Good site planning and mitigation measures would be needed where new roads are required.	Where new roads are required planting may reduce the impact
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Good site planning should avoid existing sites and allow the sites to be preserved and enhanced. New sites may be discovered during mineral excavations	New sites discovered in the process of extraction may not be able to fully retained.	0	+	++	Any new transport routes should be planned to avoid archaeological features.	New sites may be able to be retained for posterity or at least survey work can be undertaken before the site is excavated. Time is needed for survey work.
7	Protect soil resources	Use of existing principal road network will avoid using unsuitable minor roads which could prevent soil resources being developed.	Small short term effect on soil resources if new transport routes need to be constructed.	0	+	+	Where soil needs to be removed for new works, storage and re-use in restoration schemes will help mitigate any impact.	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
8	To preserve and protect geological features and promote geological conservation	Good site planning should avoid such sites and allow the sites to be preserved and enhanced	Transport routes should not disturb such features	0	+	+	Sites should be appraised on the basis of water and canal first where possible before road transport is considered.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible
9	To promote the delivery of energy efficiency and carbon reduction targets	Sustainable transport modes would be more energy efficient than roads.	Road will always be more practicable for transport of minerals which will create some negative effects regarding carbon emissions.	0	+	+	The Preferred Option gives preference to rail and water transport where this is practicable.	There is potential for some other type of trade off in migration where developers are unable to use other modes of transport.
10	Reduce consumption of natural resources	By locating operations close to existing major routes use of natural resources will be reduced	Using road instead of rail and water would increase the consumption of resources	0	+	+	The Preferred Option gives preference to rail and water transport where this is practicable	There is potential for some other type of trade off in migration where developers are unable to use other modes of transport
11	To promote adherence to the movement of waste up the waste hierarchy	Waste arising from mineral operations should be re-used in the restoration which is more sustainable.	There are no predicted negative effects.	0	+	+	Any waste from mineral operations should be used on site.	
12	Enfranchise the community in improving the local environment	Communities will be able to asses and comment on any transport proposals at an early stage	There are no predicted negative effects	+	+	++	The community supports the use of rail and water borne modes of transport and a such can contribute to the debate on transport.	
13	Improve accessibility to waste management services and facilities	Waste arising from mineral operations should be re-used in the restoration which is more sustainable	There are no predicted negative effects	0	+	+	Depends very much on site selection and whether there is potential for waste management facilities to use quarries for their operations.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Better and more sustainable transportation will help in achieving this objective	There are no predicted negative effects	+	+	++	This preferred option would contribute to the sustainable economic development of Warwickshire.	This objective could be better achieved with financial incentives
15	To explore linkages between the waste and minerals sectors	Transportation is likely to be a major link that can be developed between the waste and minerals sectors	Unless there are water and rail facilities in close proximity it is not always cost effective or practical to use these modes of transport.	0	0	+	The MWDF seeks to link the minerals and waste sectors where possible. The option will provide the framework for liaison between the waste and mineral sectors..	This objective could be better achieved with financial incentives

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Sustainable transportation is one area where new technologies could be explored by operators.	There are no predicted negative effects	0	0	+	The waste and minerals industries will achieve this objective if there are incentives in terms of cost and time.	This objective could be better achieved with financial incentives

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	8
+	24
0	16
-	0
--	0

Key Issue 13: Transport by Rail

7.99 MPS1 recommends the safeguarding of rail heads, wharfage and other storage and handling facilities for the bulk transport by rail, sea or inland waterways of mineral. This would be especially relevant for the transport of primary aggregates, recycled aggregates, coal and other minerals used and transported in large quantities.

In Warwickshire there is the possibility that potentially suitable sites for future rail heads may be constrained if sensitive developments such as housing are permitted nearby. Safeguarding of such sites could be achieved through consultation with the local Districts and Borough Councils which could also protect these areas in their Local Development Frameworks. The MPA would have the opportunity to make representations to these District plans and individual applications.

The Issues and Options consultation raised the following:

Is there a need in Warwickshire to safeguard railheads for the transportation of minerals?

The options given for comment were as follows and concentrated on whether it was felt that there was a need to follow the advice in the then Draft Mineral Planning Guidance 1 or take no proactive role in the protection of existing and potential railheads.

Option A: *Warwickshire should seek to safeguard railheads for the potential transport of bulk materials by rail.*

Option B: *No specific policies related to the issue of safeguarding railheads.*

Following the Issues and Options consultation the preferred option was an amended version of A. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option A (amended)

Warwickshire as Mineral Planning Authority should actively seek to protect existing railheads, associated infrastructure and potential sites which could be used to the transport of bulk materials by rail and inland waterways.

7.100 **Reasoning**

The consultation responses indicated that the protection of railheads, associated infrastructure and potential sites should be safeguarded for the future

There was a call for the plan to go further and seek to protect disused railway lines from development. Development over railheads and other transport infrastructure could make any future reactivation of these lines unviable should it become more economically favorable to reactivate these old railways.

Policy Principle 23 : Safeguarding of Railheads and Wharfs

The protection of existing railheads and infrastructure and other potential sites for the bulk transport of minerals should be promoted through the Minerals Development Framework and through the Local Districts and Borough Councils Local Development Frameworks.

Consultation Questions

Question 53:	Do you agree with the Preferred Option to Key Issue 13 - Transport by Rail?
Question 54:	Do you agree with the Policy Principle 23 relating to Safeguarding of Railheads and Wharfs?
Question 55:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 13?

Table 16: SA of Preferred Option : Key Issue 13: Transport by Rail

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Rich habitats are often found along preserved railway lines. This maybe beneficial to biodiversity in the short-term.	Reinstatement of railway lines may lead to some loss of biodiversity.	0	0	0	Protection of rail lines from development allows habitat formation. Once constructed the lines would lose some of their biodiversity value.	Advice from biodiversity experts could increase habitat value and species numbers.
2	Protect and improve water resources	Protection of rail and water facilities should have no impact of water resources.	There are no predicted negative effects	0	0	0	Protection of sites is likely to have no influence on water resources in the short term. There may be effects in the longer term if development takes place.	
3	Avoid, reduce and manage flood risk	Protection of rail and water facilities should have no impact on flooding in the short term.	If development takes place increase in hard surfacing could have a minor impact on run off which in turn could lead increase flood risk.	0	0	0	Protection of sites is likely to have no influence on flooding in the short term. There may be effects in the longer term if development takes place.	
4	To safeguard environmental quality in order to minimise potential impacts on community health	Protection of such facilities will provide recreational facilities in the short and medium term which would benefit community health.	In the long term some potential sites could be built on.	0	0	0	Disused railway lines and canals provide recreational opportunities for communities which can reduce potential impacts on community health.	
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Protection may maintain the quality of the public realm and preserve historic landscapes.	Minimal loss of character if the sites are developed.	0	0	0	The preservation of railheads and waterways will conserve the landscape and townscape, however if these are reinstated this may not be the case.	Landscape Character Assessments can help to integrate protected areas in to the surrounding landscape
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Such sites should not be affected – it would probably be possible to avoid damaging them.	No negative effects can be predicted at this stage	0	0	0	Any new transport routes should be planned to avoid archaeological features.	New sites may be able to be retained for posterity or at least survey work can be undertaken before the site is excavated. Time is needed for survey work.
7	Protect soil resources	Soil resources in protected areas would not be affected.	No negative effects can be predicted at this stage	0	0	0	Where soil needs to be removed for new works, storage and re-use in restoration schemes will help mitigate any impact	Soil management plans will ensure protection of soil during development where possible for use in restoration schemes.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
8	To preserve and protect geological features and promote geological conservation	Geological features should be able to protected and surveyed.	No negative effects can be predicted at this stage	0	0	0	Protection of railheads and other facilities will allow time for survey work to be carried out on land affected by this issue.	The Regionally Important Geological and Geomorphological Sites (RIGS) should be protected as far as possible
9	To promote the delivery of energy efficiency and carbon reduction targets	Neutral effect in terms of this objective in the short term but sustainable in the long term.	No negative effects can be predicted at this stage	0	+	+	The policy of protecting sites is carbon neutral in the short term. In the longer term if development for bulk transport facilities was carried out, it would provide for more sustainable forms of development and hence promote energy efficiency.	
10	Reduce consumption of natural resources	Neutral effect in terms of this objective in the short term but sustainable in the long term	No negative effects can be predicted at this stage	0	0	+	The policy of protecting sites is carbon neutral in the short term. In the longer term if development for bulk transport facilities was carried out, it would provide for more sustainable forms of development and enable the reduction of natural resources but not using road transport and help in reducing road congestion.	
11	To promote adherence to the movement of waste up the waste hierarchy	Neutral effect in terms of this objective	No negative effects can be predicted at this stage	0	0	0	Any waste from mineral operations should be used on site.	
12	Enfranchise the community in improving the local environment	Communities may benefit from the input in to how railheads and canals can be best utilised	No negative effects can be predicted at this stage	0	0	0	In the short term communities could contribute to ways of enhancing of the vacant site – in the longer term they could become involved in the final end use scheme.	Community enfranchisement is vital in ensuring the MDF is workable.
13	Improve accessibility to waste management services and facilities	Neutral effect in terms of this objective	No negative effects can be predicted at this stage	0	U	U	Any waste from mineral operations should be used on site.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Neutral effect in terms of this objective in the short term. The objective is most sustainable in the longer term.	No negative effects can be predicted at this stage	U	U	U	This preferred option will contribute to the sustainable economic development of Warwickshire	This objective could be better achieved with financial incentives for the industries.
15	To explore linkages between the waste and minerals sectors	Operators may be able to explore linkages over a long timescale in the knowledge that sites have been protected	Bulk transportation other than by road is not always cost effective	0	0	U	The MWDF seeks to link the minerals and waste sectors where possible. The option will provide the framework for liaison between the waste and mineral sectors.	This objective could be better achieved with financial incentives for the industries.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Operators may be develop new solutions to bulk transportation over a long timescale in the knowledge that sites have been protected.	Bulk transportation other than by road is not always cost effective	0	+	+	The waste and minerals industries will achieve this objective if there are incentives in terms of cost and time.	This objective could be better achieved with financial incentives

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	0
+	5
0	37
-	0
U	6

Key Issue 14: Mitigation

7.101 Minerals Policy Statement 2 (MPS2) sets out the policies and considerations in relation to the environmental effects of mineral extraction that the Government expects Mineral Planning Authorities (MPAs) in England to follow when preparing development plans and in considering applications for mineral developments. MPS2 also contains 2 Annexes on noise and dust which require MPAs to outline criteria against which dust and noise emissions should be assessed. The Good Practice Guide to MPS1 lists the principal impacts of mineral working, and the environments on which they may have an effect.

The Key Issues was asked:

How should environmental impacts be considered in assessing minerals planning applications?

The Consultation suggested the following options for selection and comment:

Option A: *The Good Practice Guides to MPS1 along with the requirements of MPS2 will be sufficient to assess any application for mineral development.*

Option B: *The limits and standards for measurable environmental impacts be defined in policy which would build on Good Practice Guidance and consider environmental issues which have particular reference to individual locations.*

Following the Issues and Options consultation the preferred option was a combination of both options, new Option C. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option C (new)

The Good Practice Guide to MPS1 and the requirements of MPS2 and other legislation and standards should be adhered too in any proposal for mineral development and also consideration should be given to local environmental impacts on a site by site basis.

7.102 **Reasoning**

Option B was considered to have covered both the local and national perspective in terms of environmental assessment of sites in accordance with national policy in respect to locally identified issues which would provide flexibility which are more specific than Option A. It is however difficult for the Mineral Planning Authority to stipulate the limits and standards for environmental impacts when much of the responsibility for regulating these impacts are with the Environmental Agency and Environmental Health Departments. This legislation is always changing, being amended and moving towards tighter controls which would mean any policy which defines actual limits would have to be constantly updated.

Option B was the most popular response but there was some consultee concerns over the environmental protection offered by the quarry industry. A new option C emphasising the role of EIA and the benefits of a wide consultation process has been considered the best option to base a Policy Principle on.

Policy Principle 24 : Environmental Impacts

All proposals for Mineral Development in the county will be assessed against national guidance and legislation and all local issues will be identified through Environmental Impact Assessment and through the consultation process.

Consultation Questions

Question 56:	Do you agree with the Preferred Option to Key Issue 14 - Mitigation?
Question 57:	Do you agree with the Policy Principle 24 relating to Environmental Impacts?
Question 58:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 14?

Table 17: SA of Preferred Option: Key Issue 14 Mitigation

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Full consideration of biodiversity issues will be reflected in any mitigation measures necessary	Mitigation should prevent any impacts as far as possible	+	+	++	Protection of certain areas from works may be appropriate during site development. Landscape and restoration measures may help mitigate the development to restore sites where necessary.	Development should accord with PPS9. Opportunity to link sites of nature conservation importance.
2	Protect and improve water resources	Water resources should be adequately protected by condition – where there is a problem there should be effective mitigation.	Mitigation should prevent any impacts as far as possible.	+	+	++	Primarily protection measures during development but some restoration should eg to restore watercourses etc.	Monitoring is important in ensuring adequate protection of water resources.
3	Avoid, reduce and manage flood risk	Any issues in respect of flood risk would be identified at an early stage through a Flood Risk Assessment	Mitigation should prevent any impacts as far as possible.	+	+	++	Selected sites will need to demonstrate as far as possible there will be no adverse effect through a Flood Risk Assessment.	Development should accord with provisions of PPS 25 and mitigation should be effected where necessary.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Using MPS1 and assessing developments on a site by site basis would enable effective mitigation tailored to the site to be carried out.	Impacts should be reduced by effective mitigation identified at planning application stage	+	+	++	Better landscape protection and remedial measures as part of agreed mitigation measures will benefit quality of life for local communities.	Mitigation to safeguard environmental quality could take on a number of forms of protection and would be controlled by condition and agreement
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Impacts should be reduced by effective mitigation identified at planning application stage	In the short term some areas will suffer damage before restoration in the long term. Mitigation will reduce damage – the objective is therefore positive	+	+	++	With good consultation and good environmental safeguards mineral sites can complement the existing landscape/ townscape.	Landscape Character Assessments can be used in achieving this objective.
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Impacts should be reduced by effective mitigation identified at planning application stage	In some cases mitigation might not be possible to protect such features.	+	+	++	Development should avoid such features where possible. Effective mitigation will preserve and enhance archaeological features in the long term	
7	Protect soil resources	Impacts should be reduced by effective mitigation identified at planning application stage	In the short term some areas will suffer damage before restoration in the long term.	+	+	++	Protection of soil resources by effective mitigation could enable good agricultural after use or poor soil could encourage habitat creation.	
8	To preserve and protect geological features and promote geological conservation	Impacts should be reduced by effective mitigation identified at planning application stage	Short term negative impacts possible but long term benefits are probable.	+	+	++	Development should avoid such features where possible. Effective mitigation will preserve and enhance geological features in the long term.	Development should accord with PPS9.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
9	To promote the delivery of energy efficiency and carbon reduction targets	Good site assessment in this way can ensure contribute to energy efficiency	Extraction of minerals despite mitigation may not make a huge contribution to reducing carbon reduction targets.	0	+	++		Good Site selection should be effected to enable development to be carried out sustainably, which would require less mitigation.
10	Reduce consumption of natural resources	Effective mitigation on a site by site basis may help in reducing the consumption of natural resources.	Extraction will still mean consumption of resources in total.	0	+	++	Good site selection, lower travel distances and sustainable production can contribute to the reduction in consumption of natural resources.	
11	To promote adherence to the movement of waste up the waste hierarchy	Mitigation may not influence this objective greatly	No negative effects can be predicted at this stage	0	+	++	Recycling of materials is promoted as one of the main objectives of the minerals strategy. Where recycling is an issue mitigation may help in ensuring delivery.	
12	Enfranchise the community in improving the local environment	The local community can become greatly involved and exert influence in the mitigation process.	No negative effects can be predicted at this stage	+	+	++	using national guidance and local knowledge for a site by site analysis will better inform the community and allow greater understanding and participation	
13	Improve accessibility to waste management services and facilities	Mitigation measures in respect of transportation between sites may enable improved accessibility.	No negative effects can be predicted at this stage	0	+	++	Better routing of lorries between facilities can prevent nuisance and congestion. Better siting of facilities can lower travel distance.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Effective mitigation will ensure that the industry plays a central role in sustainable development.	No negative effects can be predicted at this stage	+	+	++	Effective mitigation could be the deciding factor which enables the sustainable economic development of particular sites.	
15	To explore linkages between the waste and minerals sectors	Both sectors will benefit from effective mitigation measures; these may be transferable	Linkages may not be possible in some cases or may be unsustainable in terms of location.	0	+	++	The MWDF seeks to link the minerals and waste sectors as far as possible.	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Mitigation measures could be improved by new innovative technologies	New technologies may take time to come through.	0	+	++	Not possible to define particular benefits given the wide variety of resources – obviously these will be evident in the long term.	

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	16
+	26
0	6
-	0
--	0

Key Issue 15: Buffer Zones

7.103 Buffer Zones are bands left around settlements or sensitive properties in order to protect existing residential areas from potential disruption of mineral workings as in such zones no mineral working can occur. For the purposes of the current plan buffer zones were defined so that any extraction would be normally not less than 200m from a settlement. For the purposes of the plan a settlement was taken to be a cohesive group of 10 or more dwellings.

The question of how the issue of Buffer Zones to mineral developments was identified -

How should the Minerals Development Framework address the issue of the proximity of residential properties to possible mineral development?

The suggested options for selection and comment were -

Option A: *There should be a set standard distance for buffer zones around defined settlements in which no mineral extraction can occur, which in the current plan is set at 200m.*

Option B: *Set no minimum predetermined buffer zone distance precluding mineral development leaving the applicant to demonstrate that they can carry out the extraction and other operations in close proximity to settlements or sensitive properties.*

Option C: *Set a minimum buffer zone around settlements which may be extended on a site by site basis taking into account other sensitive properties.*

Following the Issues and Options consultation the preferred option was option B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B

Set no minimum predetermined buffer zone distance which precludes mineral development but leave the applicant to demonstrate that they can carry out the extraction and other operations in close proximity to settlements and sensitive properties.

7.104 **Reasoning**

There was support for Option B as it applies flexibility to individual situations where for instance a distance of 200m might be deemed inappropriate due to the existing terrain or ground conditions which might make development less than 200m possible from residential properties. Option C with a stipulation that the minimum distance should be 200m was also mooted several times as this would afford protection of settlements and sensitive properties and be flexible to increase distances if required.

The response from industry against the setting of minimum buffer zones for all developments was that mineral resources may be unnecessarily sterilised when with adequate safeguards it may be possible to work mineral closer to settlements and properties. It was commented that set buffer zones should be applied to SSSI's but this could result in mineral sterilisation which might not be necessary of the appropriate environmental assessments had been carried out through the planning process.

Policy Principle 25 : Proximity of Mineral Development

There will be no stated minimum stand off distance between Mineral Developments and settlements, sensitive properties or other land use activities. All proposals for the extraction and working of mineral in Warwickshire will have to demonstrate that there will be no unacceptable environmental impacts including noise, dust and land stability which would be experienced by local communities and residential, sensitive and other properties adjacent to the proposed site.

Consultation Question

Question 59:	Do you agree with the Preferred Option to Key Issue 15 - Buffer Zones?
Question 60:	Do you agree with the Policy Principle 25 relating to Proximity of Mineral Development
Question 61:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 15?

Table 18: SA of Preferred Option : Key Issue 15 Buffer Zones

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Habitats can be retained or enhanced within buffer zone areas.	It might be that in exceptional cases a distance can't be specified without disagreement	0	0	0	Biodiversity will be enhanced and conserved because operators will have to prove beyond doubt what distance is acceptable to safeguard species and habitats.	Habitats may develop over time within buffer zones which would be protected from other development to some extent.
2	Protect and improve water resources	There is scope to protect and improve water resources in buffer zones as mineral workings could influence areas outside the site boundaries.	It is not possible to predict any negative effects can at this stage in terms of the objective. However, there could be some impact on water resources outside the site from development	0	0	0	Water resources could be improved because operators will have to safeguard water resources.	Consultation with the Environment Agency would be necessary.
3	Avoid, reduce and manage flood risk	Buffer zones could allow for some capacity for flood drainage areas.	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones can act as flood water storage areas.	Flood risk can be managed and reduced in buffer zones.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Applicants would have to prove that environmental quality can be protected at application stage prior to development	It is not possible to predict any negative effects can at this stage	+	+	+	Because of the burden of proof place upon the applicant any set distance should effectively prevent such issues becoming problems	Buffer zones would safeguard environmental quality
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Applicants would have to prove that landscapes / townscapes would not be affected	It is not possible to predict any negative effects can at this stage	+	+	+	Buffer zones can contribute to improving the landscape – there would be less pressure for development around quarries.	Buffer zones can help to contribute to the county's landscape and townscape. Development should be restricted in these areas once a mineral operation is underway
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	As applicants have to prove beyond doubt what distance is suitable, sensitive properties, listed buildings, scheduled monuments and other features of cultural, historical or archaeological value and their settings would be preserved.	It is not possible to predict any negative effects can at this stage	+	+	+	Such features would be protected within buffer zones. Initial surveys might discover new sites.	Such features would be protected within buffer zones. Initial surveys might discover new sites.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
7	Protect soil resources	Soil resources would be protected within buffer zones.	It is not possible to predict any negative effects at this stage	0	0	0	There would be no reason to disturb soil inside the buffer zone – hence the soil resources would be protected from development.	As there would be no development within the buffer zone no mitigation would be necessary.
8	To preserve and protect geological features and promote geological conservation	As applicants have to prove beyond doubt what distance is suitable, geology would be preserved.	It is not possible to predict any negative effects can at this stage	0	0	0	Such features would be protected within buffer zones. Initial surveys might discover new sites.	Such features would be protected within buffer zones. Initial surveys might discover new sites.
9	To promote the delivery of energy efficiency and carbon reduction targets	A neutral impact might be expected in this case	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones may have little impact on this objective other than it might prevent development adjacent to quarries which could help to reduce carbon production indirectly.	As there would be no development within the buffer zone no mitigation would be necessary.
10	Reduce consumption of natural resources	A neutral impact might be expected in this case	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones may have little impact on this objective other than it might prevent development adjacent to quarries which could help to reduce consumption of natural resources indirectly.	As there would be no development within the buffer zone no mitigation would be necessary.
11	To promote adherence to the movement of waste up the waste hierarchy	A neutral impact might be expected in this case	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones are unlikely to have a great significant effect on this objective.	As there would be no development within the buffer zone no mitigation would be necessary.
12	Enfranchise the community in improving the local environment	The community would be able to become involved with discussions about what is an acceptable distance.	Long convoluted discussions about each buffer could to the delay the production of mineral application.	+/+	+/+	+/+	The community can become involved at an early stage of the planning process and can have greater influence within it.	As there would be no development within the buffer zone no mitigation would be necessary.
13	Improve accessibility to waste management services and facilities	A neutral impact might be expected in this case	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones are unlikely to have a great significant effect on this objective.	As there would be no development within the buffer zone no mitigation would be necessary.
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	A buffer zone that is responsive to the local situation may lead to increased economic viability of some mineral reserves.	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones are unlikely to have a great significant effect on this objective.	As there would be no development within the buffer zone no mitigation would be necessary.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
15	To explore linkages between the waste and minerals sectors	A neutral impact might be expected in this case	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones are unlikely to have a great significant effect on this objective.	As there would be no development within the buffer zone no mitigation would be necessary.
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	The emphasis will be on operators to demonstrate the proximity within which activities can be undertaken, this may form an incentive for developers to explore innovative ways to limit impacts on amenity.	It is not possible to predict any negative effects can at this stage	0	0	0	Buffer zones are unlikely to have a great significant effect on this objective.	As there would be no development within the buffer zone no mitigation would be necessary.

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	3
+	9
0	36
-	0
--	0

Key Issue 16: Restoration and After-Use.

7.105 Mineral extraction is by its very nature a temporary land use and therefore is unlike many other forms of development. Land from which minerals have been extracted must be restored to its former use or to a number of beneficial new uses. All applications for mineral working must contain a scheme committing the developer to restore the site to a beneficial use once extraction has ceased. Historically, quarry restoration has been predominately concerned with returning the land to agriculture but more recently this has been less of a theme with quarries restored for biodiversity benefits or public amenity uses.

The Consultation raised the question:

How should the Minerals Development Framework address restoration of mineral workings?

Three suggested options were given for selection and comment:

Option A: *Promote the restoration of mineral workings to predominately agriculture where possible, with other uses supplementary to this such as support of both the Local Biodiversity and Geodiversity Action Plan's and public amenity.*

Option B: *Provide an overarching county wide strategy of restoration based on geographical zones, designating how mineral working sites should be restored to enhance biodiversity, agriculture, geodiversity, public amenity etc depending on its location in the county.*

Option C: *Provide no guidance on restoration schemes but ensure proposals for mineral extraction include the restoration of the site to a high environmental standard.*

Following the Issues and Options consultation the preferred option was combination of options, Option D. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

> Preferred Option D (new)
>
> The Minerals Development Framework should provide no specific guidance on an overall strategy for restoration schemes but will ensure proposals for the restoration of land after the working of mineral will be of a high standard and ensure the participation of all interested stakeholders through the consultation process.

7.106 **Reasoning**

The bulk of the consultation responses supported B as it was believed that this would offer most flexibility in accommodating a variety of end uses. This was the issue which created the most consultee comments which emphasises it importance to local communities. Option B encourages a wide choice of end uses but would also produce a county wide overarching strategy within the plan which would guide individual restoration schemes. It was also noted that a restoration scheme to mainly agriculture would not preclude opportunities for bodiversity, geodiversity or leisure.

7.107 The benefits of a joined-up approach to quarry restoration schemes have been promoted with special reference to achieving biodiversity benefits. A combined approach to the restoration schemes of mineral sites which are in close proximity to each other may offer net benefits and opportunities than a series of separate schemes at each individual site

7.108 The provision of over-arching policies aimed at directing restoration schemes on a county wide basis could be seen to be too prescriptive and a more flexible system should be established. This system would allow the involvement of stakeholder and community groups to discuss the various options for a restoration scheme during the consultation process for an individual application. It would be advisable for developers to involve the local community, ecology groups, RIGS groups and other interested parties at the pre-application stage. The Preferred Option would therefore be a new option D, which would

produce no overall central strategy but ensure all relevant stakeholders and communities were involved at a pre-application stage to ensure all opportunities for a restoration scheme could be fully considered.

7.109 It should be noted that the Landfill Tax is seen as a major factor in the move away from restoration of sites to agriculture as the availability of inert material for filling mineral voids has decreased rapidly. Changing European and UK legislation with regard to Waste Management practises and classifications have also been directed at moving waste away from disposal and encouraging reuse and recycling. Changes in the need for the creation of Biodiversity habitats would be better catered for with a more flexible system of restoration which would take into account current priority habitats. Assessing restoration schemes at the pre-application stage would also ensure that any scheme would take consider all relevant national, regional and local policies or requirements.

7.110 With all restoration schemes the requirements of the landowner will be a major factor in deciding the end use of the land. Some landowners may wish for the land to be returned to agriculture where possible but in most cases there will be opportunities to explore opportunities more directed to biodiversity, woodland or recreational use.

Consultation Questions

Question 62:	Do you agree with the Preferred Option to Key Issue 16 - Restoration and Afteruse?
Question 63:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 16? *The SA for Key Issue 16 is identical to Key Issue 17 (Planning for Restoration) so the only the Table has been included (Table 19).

7.111 A second question was asked as to the timing of agreeing restoration schemes for mineral workings. In allocating sites some benefit could be seen in attaching an agreed restoration scheme in principal to inform developers and local communities in advance of any application what form and landuses the site would be returned to.

The Issues and Options Consultation asked:

At what part of the planning process should the details of the restoration scheme be agreed?

The options provided for selection and comments were:

Option A: *All allocated sites in the Minerals Allocations Development Plan Document should have a restoration scheme agreed in principle as part of its inclusion in the plan judged on individual circumstances and the consultation process.*

Option B: *All restoration schemes for mineral workings should be agreed at the consultation stage of the planning application*

Following the Issues and Options consultation the preferred option was Option B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B (amended)

All restoration and afteruse schemes for proposals for minerals workings should be agreed as part of the consultation process for all applications.

7.112 **Reasoning**

From the consultation responses there was support for both Options A and B with slightly more in favour of B. This option was considered was seen to provide greater certainty for local communities with the final restoration scheme being agreed in principal at the site allocation stage. Respondents could see the benefits of Option A as it provided greater flexibility to take into account changes in policies, technologies other strategies.

7.113 By attaching to allocated sites an agreed in principle restoration scheme the Minerals Core Strategy would prove to inflexible by forcing rigid adherence to an agreed scheme. There is no certainty of the timing of mineral applications for Allocation and therefore restoration schemes would be limited in there scope and unable to take account of current changes in legislation, policy or consultee responses.

7.114 The Policy Principle which emerges from the two questions regarding restoration of mineral workings recognises the need to allow a flexible approach to schemes but also ensure communities and other interested stakeholders have ample opportunity to express their views and guide the final submitted scheme.

Policy Principle 26 : Restoration and Afteruse

The restoration and aftercare of mineral workings to high standard will be required and form part of the planning application.

The involvement of the local community, the Minerals Planning Authority and other interested stakeholders will be a requirement at the pre-application stage for any proposal for mineral development. This should ensure opportunities for the creation of new wildlife habitats, recreational facilities, sites of geological interest and other potential uses have

Question 64:	Do you agree with the Preferred Option to Key Issue 17 - Planning for Restoration?
Question 65:	Do you agree with the Policy Principle 26 relating to Restoration and Afteruse?
Question 66:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 17?

Table 19: SA of Preferred Option 16 and 17 RESTORATION AND AFTER-USE

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Beneficial effects expected due to a non–prescriptive method of restoration – schemes will be tailored to each site.	Uncertainty regarding the objectives of the final scheme as there is no overarching strategy.	U	U	U	Benefits would be expected for biodiversity where habitat creation was the primary function of the restoration scheme.	Development should accord with PPS9. Opportunities to develop new, or enhance existing, wildlife site should be considered and where appropriate utilised. Operations which promote the sustainable management of wildlife resources and ecological processes at decommissioned facilties and workings could be encouraged.
2	Protect and improve water resources	Improvements to water resources would be expected.	It is not possible to predict any negative effects at this stage	+	+	+	Non prescriptive restoration allows opportunities to improve water resources	
3	Avoid, reduce and manage flood risk	Flood risk would be considered as part of the application and individual restoration schemes could help manage the reduction of flood risk.	As there is no overarching strategy, restoration schemes are less likely to be used in flood management .	0	0	0	Flood risk can be better managed where it is considered at an early stage and restoration may help in this respect.	A prevention of “inappropriate” development on the floodplain should avoid, reduce and manage flood risk.
4	To safeguard environmental quality in order to minimise potential impacts on community health	Environmental quality can be safeguarded as part of the restoration scheme	It is not possible to predict any negative effects can at this stage	+	+	+	Sensitive restoration will safeguard the environment for the future and this may result in landscapes and facilities and features which can benefit community health.	Consultation on applications will seek to incorporate any concerns the public may have, and in addition Warwickshire will continue to consult with Environmental Health Officers (EHOs) and Primary Care Trusts (PCTs) where appropriate.
5	To conserve and enhance the character and quality of the County’s landscape and townscapes	The restoration scheme should take this in to account to improve the county’s landscape and townscape.	Less certainty of final scheme without overarching strategy	+	+	+	The restoration scheme should accord with the County’s Landscape Character Assessments to blend in to the surrounding landscape once development has stopped.	Opportunities should taken to enhance the character and appearance of the County’s countryside, maintaining and strengthening local distinctiveness.

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	The non–prescriptive method of restoration schemes will be tailored to each site to be benefit archaeology where possible and gives more scope to consider potential future discoveries	Less certainty of final scheme without overarching strategy	+	+	+	Likely that such assets would be preserved and where opportunities exist these can be improved.	Measures should be taken to ensure that restoration is sympathetic towards the local environment.
7	Protect soil resources	The non-prescriptive method of restoration schemes will be tailored to each site to be benefit soil resources where possible, and consider contaminated land where necessary.	The nature of some restoration schemes may require the stripping or removal of soil resources , for ecological, geological or other benefits.	+	+	+	Top soil can be stored on site during development. Effective protection of soil resources can result in restoration to agriculture; where soils are impoverished they may provide good habitats for wildlife.	Highest standards of restoration and aftercare of land should be aimed for.
8	To preserve and protect geological features and promote geological conservation	A non–prescriptive method of restoration will result in schemes being tailored to each site to be benefit geological assets where possible. and gives more scope to consider potential future discoveries	It is not possible to predict any negative effects can at this stage.	+	+	+	Effective restoration measures will preserve and enhance geological features where possible.	Development should accord with PPS9. Where possible, schemes should limit losses to geological assets.
9	To promote the delivery of energy efficiency and carbon reduction targets	Restoration could provide possibilities for energy efficient end uses. The high standards required may take this into account.	It is not possible to predict any negative effects at this stage.	0	U	U	The majority of restoration schemes would contribute to the reduction of the carbon footprint.	
10	Reduce consumption of natural resources	As each scheme is assessed individually, technological advancement reducing resource consumption could be considered when an application is made.	No negative effects can be predicted	0	+	+	Restoration schemes could involve possible energy production measures.	Restoration schemes should seek to promote sustainability principles through their design.
11	To promote adherence to the movement of waste up the waste hierarchy	Without an overarching strategy restoration schemes can be more responsive to future policy and technology changes, reducing the landfill capacity required.	As there is no overarching strategy sites maybe promoted for restoration schemes which do not support this objective.	0	+	+/+	It should be the aim of the Core Strategy to ensure that landfill end uses are discouraged. Tipping in former quarries should be avoided, except for in exceptional circumstances, and should not generally be appropriate as part of a restoration scheme.	Re-use of Quarry waste in the engineering of restoration schemes should be encouraged

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
12	Enfranchise the community in improving the local environment	The community can have a significant input at the application stage as restoration scheme is not prescribed in the MDF. This should help limit neighbourhood "dissatisfaction" and encourage ownership.	No negative effects can be predicted	+/+	+	+	Consultation at an early stage (pre-application if possible) will enable the public to have an input into discussions regarding future restoration proposals.	Community Engagement initiatives could be considered. A joint working group between different quarry operators, WCC and the community to discuss restoration issues have been proposed through previous consultation.
13	Improve accessibility to waste management services and facilities	It is unlikely that this option will have a significant effect.	There may be issues in respect of the transport of restoration materials.	U	U	U	Where waste facilities are proposed to run alongside a mineral operation they must be assessed on their own merit.	This objective will be addressed when the situation arises.
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Mineral restoration schemes can have a significant effect on the future sustainability of an area. This options gives restoration scope to be responsive to the sustainable economic development needs of the area.	It is not possible to predict any negative effects at this stage	+	+	+	At application stage it should be possible to ensure that the final restoration scheme that is agreed should contribute to future sustainable economic development	
15	To explore linkages between the waste and minerals sectors	The preferred option allows flexibility for linkages to be examined.	Operators may be put off joint working because of the lack of an overarching strategy	U	U	U	Achieving this objective depends on the attitude and co-operation of both industries to work together	This may be achieved if there are financial incentives to the industry
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Given the long timescale and flexibility of the preferred option for restoration this objective should be achievable	Operators could potentially be discouraged from joint working due to the lack of an overarching strategy.	0	+	+/+	Achieving this objective depends on the attitude and co-operation of both industries to work together.	This may be achieved if there are financial incentives to the industry

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	3
+	27
0	7
-	0
U	11

Key Issue 18: Monitoring and Enforcement

7.115 Warwickshire recognises and supports active monitoring of all its mineral development sites to ensure they operate within the conditions of their permissions and maintain good operational practices. The County Council is currently drawing up a systematic process of monitoring for all minerals sites in accordance with the provisions of the *"Fees for monitoring of mining and landfill sites in England – A guide to implementation and good practice"* published by the ODPM on April 2006.

In recognising the importance of

Mineral Developments need to be monitored by the County Council to ensure that all the conditions of the Planning Permission are being complied with. Which of the following options do you prefer?

The options in the consultation were as follows:

Option A: *That the Minerals Development Framework contains policies which ensure all mineral developments are subject to the same monitoring processes in accordance with the recently published Good Practice Guide as previously mentioned.*

Option B: *The Minerals Development Framework will contain no specific policies prescribing monitoring processes but all mineral site monitoring continues on a site by site basis within the systematic process of monitoring which is currently being developed in line with the Good Practice Guide.*

Following the Issues and Options consultation the preferred option was Option B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B (amended)

The Minerals Development Framework will contain no specific policies prescribing monitoring processes but all mineral site monitoring continues on a site by site basis with the systematic process of monitoring which is currently in operation and takes account of the recently published guidance and other good practice guides.

7.116 **Reasoning**

Option A was considered by some of the consultees to be the best option in a proportion of the responses as it was considered to be more upfront and transparent. However, it was also strongly rejected by other respondents who quoted national good practice guidance set out in the 2006 publication over local policies.

In response to the consultation it is felt that Option B would be the preferred option for the issue of Monitoring. It was felt that Option B presented flexibility to take into account the varied size and nature of the mineral developments in Warwickshire and provided a framework which could evolve to take into account changing circumstances at individual sites in line with the 2006 Good Practice Guidance.

Policy Principle 27

Monitoring of sites is an operational requirement and will not be outlined in policy.

Consultation Questions

Question 67:	Do you agree with the Preferred Option to Key Issue 18 - Monitoring and Enforcement?
Question 68:	Do you agree with the Policy Principle 27 – that there is no Policy on the Monitoring of Sites?
Question 69:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 17?

Table 20: SA of Preferred Option : Issue 18 Monitoring and Enforcement

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	This option can be tailored to particular situations and localized features, monitoring issues such as noise, soil air and water pollution, which can have indirect effect on biodiversity.	Perception that the process might be less clear than if there were a prescribed policy.	+	+	+	Enhanced monitoring and enforcement procedures will allow greater scrutiny of biodiversity issues	Input from the County Ecologist may be required where there are issues re monitoring of biodiversity .
2	Protect and improve water resources	A site specific approach will allow any adverse water quality impacts to be addressed in a timely manner	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	The site specific approach will allow more effective long-term monitoring of water resources, where appropriate.	The prudent issue of water resources should be encouraged.
3	Avoid, reduce and manage flood risk	Flood risk issues vary dependent on mineral type and site location. An individual approach will allow monitoring to deal with these accordingly.	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	Flood risk can be avoided or reduced when monitoring on a site by site basis using good practice guidance as it will allow flexibility and responsiveness to act quickly.	Enhanced monitoring procedures will allow greater consideration of flood risk issues at all stages.
4	To safeguard environmental quality in order to minimise potential impacts on community health	The preferred Option can be more responsive and tailored to the local context.	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	Community health may be improved where there is monitoring on a site by site basis using good practice guidance which will allow flexibility and responsiveness to act quickly.	WCC will encourage liaison between operators and EHOs when appropriate.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Monitoring can be tailored to local issues.	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	Potential impacts on landscapes and townscape can be identified at the application stage and monitored if appropriate.	Monitoring and appraisal against the County's Landscape Character Guidelines will be required
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	The preferred Option can be more responsive and tailored to particular situations to take account of local archaeology and historic assets.	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	Extraction activities may lead to discoveries that add to Warwickshire's diverse heritage. Monitoring and enforcement measures outlined in good practice can better enable the enhancement and protection of cultural assets.	Where necessary the County's Archaeologist may be required to monitor specific situations on a site by site basis.
7	Protect soil resources	The preferred option can be more responsive and tailored to particular situations to protect soil resources	Some loss of soil resources in the medium and short term is likely.	+	+	+	Top soil can be stored and re-used in the medium and longer term.	Poorer soils may be more useful in terms of nature conservation

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
8	To preserve and protect geological features and promote geological conservation	The monitoring and enforcement process will be more flexible to enable greater protection of such features where they are an issue.	Perception that the process might be less clear than if there were a prescribed policy	+	+	+	In the long term mineral developments tend to enable improvements to the conservation and display of geological features.	Better monitoring will result in greater scrutiny of geological issues and collection of evidence to back up decision making.
9	To promote the delivery of energy efficiency and carbon reduction targets	Site by site monitoring should help to ensure that any carbon reduction targets for mineral workings are met	No negative effect can be predicted at this stage	0	0	0	Monitoring and enforcement are unlikely to have a great effect in carbon reduction measures.	
10	Reduce consumption of natural resources	There is likely to be a neutral impact	No negative effect can be predicted at this stage	0	0	0	Monitoring and enforcement are unlikely to have a great significant effect on the consumption of natural resources.	
11	To promote adherence to the movement of waste up the waste hierarchy	There is likely to be a neutral impact	No negative effect can be predicted at this stage	0	0	0	Monitoring and enforcement are unlikely to have a great significant effect on the this objective.	
12	Enfranchise the community in improving the local environment	A site specific monitoring programme will allow for input from local communities both at the application stage and during operation.	Perception that there is less transparency without a headline policy.	+	+	+/+	Potential for residential involvement in maintaining amenity may help to create a sense of place.	Liaison between communities and operators, regarding monitor and enforcement will be encouraged.
13	Improve accessibility to waste management services and facilities	There is likely to be a neutral impact	There is likely to be a neutral impact	0	0	0	Monitoring and enforcement are unlikely to have a great significant effect on the this objective.	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	There is likely to be a neutral impact	There is likely to be a neutral impact	0	0	0	Monitoring and enforcement are unlikely to have a significant effect on this objective.	
15	To explore linkages between the waste and minerals sectors	There is likely to be a neutral impact.	There is likely to be a neutral impact	0	0	0	Monitoring and enforcement are unlikely to have a significant effect on the this objective.	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	There is likely to be a neutral impact for this objective	There is likely to be a neutral impact for this objective.	0	0	0	Monitoring and enforcement are unlikely to have a significant effect on the this objective.	

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	**Preferred Option**
+/+	1
+	26
0	21
-	0
--	0

Key Issue 19: Long Term Community Involvement

7.117 Warwickshire County Council has always supported the continued local community involvement during the complete lifespan of mineral developments. The establishment of liaison groups at specific sites creates a forum of understanding and provides a conduit for information between the developer and residents and other stakeholders.

The Issues and Options consultation recognised the importance of liaison groups as a longer term commitment to local community engagement by asking:

Should the establishment of a liaison committee for all new and established mineral extraction and development activities be encouraged through policy?

The options for selection and comment were:

Option A: *A liaison committee should be a requirement for all new permissions for the extraction and working of minerals within the County and guidance given as to how these committee's should operate.*

Option B: *The decision to establish a liaison committee should be by arrangement between the local community and the developer.*

Following the Issues and Options consultation the preferred option was Option B. A summary of the consultation responses for this Key Issue and the associated Sustainability Appraisal is contained in Appendix 1.

Preferred Option B (amended)

The decision to establish a liaison committee at mineral developments will be encouraged and supported by the County Council but its operation should be by the request of the local community.

7.118 **Reasoning**

There was overwhelming support for Option A which it was felt, would make developers accountable and place a requirement on them to participate local communities to discuss operations and any potential concerns with them. A liaison committee was seen as empowering local communities and provides a link to the developer once planning approval has been granted. Some respondents made the point that it should not be a requirement but it should be encouraged so the community has the chance to get involved. Liaison committees work best and are most effective when the have the full involvement of the local community as well as the support of the developer and the County Council. By making a liaison committee a requirement of any permission could prove a problem where there isn't the interest from the local community.

Policy Principle 28 : Long Term Community Involvement

Encouragement, support and guidance will be given to the creation of liaison groups and committees at new and existing mineral developments.

Consultation Questions

Question 70:	Do you agree with the Preferred Option to Key Issue 19 - Long Term Community Involvement?
Question 71:	Do you agree with the Policy Principle 28 relating to Long Term Community Involvement?
Question 72:	Do you agree with the Sustainability Appraisal undertaken for the Preferred Option for Key Issue 19?

Table 21: SA of Preferred Option : Key Issue 19 Long Term Community Involvement

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option Effect (+/+, +, 0,-, -/-)			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				ST	MT	LT		
1	Conserve and enhance biodiversity	Biodiversity is likely to be protected and enhanced because of better voluntary participation in liaison meetings.	No negative effects of voluntary community engagement can be predicted.	0	U	U	The beneficial effects are likely to be noticed once the liaison group is up and running and the effects will be greater as time goes by.	Communities should become more aware of current development and future biodiversity aims for the site.
2	Protect and improve water resources	Improvements to water resources would be expected with greater public involvement	No negative effects of voluntary community engagement can be predicted.	U	U	U	Liaison groups should ensure sites are better monitored for protection of water resources.	
3	Avoid, reduce and manage flood risk	Liaison meetings could help reduce potential impacts.	No negative effects of voluntary community engagement can be predicted.	U	U	U	Mineral developments may help in the long term alleviation of flood risk in some areas by the creation of balancing lakes/ponds.	
4	To safeguard environmental quality in order to minimise potential impacts on community health	Liaison meetings are likely to raise issues relating to community health at an early stage, in particular statutory nuisance associated with air pollution, noise, dust, light pollution and gaseous emissions.	No negative effects of voluntary community engagement can be predicted.	0	U	U	Liaison groups should ensure sites are better monitored for safeguarding of environmental quality eg noise dust etc.	Ensure that new and existing mineral developments do not impact on local people.
5	To conserve and enhance the character and quality of the County's landscape and townscapes	Public involvement can influence the preservation or enhancement of local distinctiveness and sense of place.	No negative effects of voluntary community engagement can be predicted.	0	U	U	Continual dialogue between developer and local people can lead to the better conservation enhancement of an area.	Good Design especially in the context of the county's Landscape Character Assessments is central to
6	Preserve and enhance sites, features and areas of historic, archaeological or architectural importance, and their settings	Liaison meetings could help reduce impacts. The forum is open to the County Archaeologist to attend and influence the processes.	No negative effects of voluntary community engagement can be predicted.	0	U	U	Mineral workings provide opportunities to add to Warwickshire's diverse heritage. Liaison meetings will allow greater public involvement in the protection and enhancement of cultural assets.	Warwickshire has a substantial cultural heritage resource.
7	Protect soil resources	Voluntary participation in liaison meetings could help to reduce impacts during development.	No negative effects of voluntary community engagement can be predicted.	U	U	U	By storing disturbed top soil land may be reinstated after the mineral working has ceased. Liaison meetings may help to resolve any issues in this respect.	Poorer soils may be more useful in terms of nature conservation.
8	To preserve and protect geological features and promote geological conservation	Liaison meetings could help reduce impacts. There is the scope for the county geologist to attend meetings when necessary.	No negative effects of voluntary community engagement can be predicted.	0	U	U	In the long term mineral developments tend to enable improvements to the conservation and display of geological features.	The Regionally Important Geological and Geo morphological Sites (RIGS) should be protected

SA Objective		Predicted Nature of Effect Positive	Predicted Nature of Effect Negative	Preferred Option			Commentary/Explanation *Note predicted nature of effect, how, who and where it will impact, and enhancement opportunities*	Enhancement and mitigation
				Effect (+/+, +, 0,-, -/-)				
				ST	MT	LT		
9	To promote the delivery of energy efficiency and carbon reduction targets	Liaison meetings could help reduce impacts in minor ways. But unlikely to be positive results in the very short term	No negative effects of voluntary community engagement can be predicted.	0	0	0	Liaison groups may help in bringing forward ideas in respect of this objective.	Liaison groups have been running successfully in Warwickshire over a number of years.
10	Reduce consumption of natural resources	Liaison meetings could help reduce impacts.	No negative effects can be predicted.	0	0	0	Sustainable extraction can save valuable resources for a longer period.	
11	To promote adherence to the movement of waste up the waste hierarchy	Liaison meetings could help reduce impacts.	May require financial incentives to the industry before this is done.	0	0	0	Liaison groups may help in bringing forward ideas in respect of this objective	
12	Enfranchise the community in improving the local environment	Liaison meetings encompass this objective	No predicted negative effects. Benefits may accrue all the way through the process.	-	U	U	Liaison groups may help in bringing forward ideas in respect of this objective	Greater public involvement is the key to achieving better schemes and better methods of working.
13	Improve accessibility to waste management services and facilities	Some influence may be effected.	If there are benefits it is likely to be over a longer timescale	0	0	0	Liaison groups may help in bringing forward ideas in respect of this objective	
14	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	Some influence may be effected	May require financial incentives to the industry before this is done.	0	0	0	Greater sustainability measures may be able to be introduced over the medium and long term and influence can be exerted via liaison meetings	
15	To explore linkages between the waste and minerals sectors	The general public could feed in to this process with ideas.	May require organisations not involved locally to become involved.	0	0	0	Liaison groups may help in bringing forward ideas in respect of this objective	
16	To encourage waste and minerals operators to explore new and innovative environmental technologies.	Liaison meetings would give the public a platform on which to discuss new technologies with the operators.	No negative effects predicted. But there may be a long timescale before industry can implement new innovations.	0	U	U	Innovations may be able to be introduced over the medium and long term and influence can be exerted via liaison meetings.	

Summary of Sustainability Appraisal	
Occurrence of Significant Effects (No.)	
Nature of Effect	Preferred Option
+/+	0
+	0
0	24
-	1
U	23

Glossary and Useful Terms

Aftercare

The management and treatment of land for a set period of time immediately following the completed restoration of a mineral workings to ensure the land is returned to the required environmental standard.

After-use

The long term use that land formerly used for mineral workings is restored to. This use can be agricultural, forestry or public amenity such as country parks.

Aggregates:

A term defined by the British Geological Survey to describe “granular or particulate material which is suitable for use, on its own or with a binder such as cement, lime or bitumen, in construction as concrete, mortar, roadstone, asphalt or drainage courses, or for use as constructional fill or railway ballast”.

Apportionment:

The proportional split of the regional guidelines for the supply of aggregates for the West Midlands which is shared between the Mineral Planning Authorities.

Annual Monitoring Report (AMR):

The report prepared by the County Council to assess the implementation of the Minerals and Waste Development Scheme and to what extent to which the policies in the Minerals and Waste Development Framework are being successfully implemented.

Ancillary Operations:

Those activities associated with the winning and working of minerals such as processing.

Areas of Search:

Areas of Search are designated sites which have mineral potential but for which there hasn’t been the detailed investigation to prove the quality of the deposit. Therefore industry is encouraged to assess their economic viability. These areas have been examined against environmental constraints and their identification confers a general presumption in favour of proposals for extraction within them.

Borrow Pit:

A temporary and usually small scale mineral extraction operation specifically to supply mineral to a major construction project nearby.

Buffer Zones:

These are areas drawn around settlements or properties in which mineral development is prohibited. The purpose of these zones is to protect settlements from disruption caused by the working of minerals.

Crushed Rock:

Naturally occurring rock which is crushed into a series of required sizes to produce an aggregate.

Development Plan Documents (DPDs):

DPD's outline the key development goals of the Local Development Framework. These are documents that have been subject to rigorous community involvement, consultation and independent examination. Once adopted , development control decisions must be made in accordance with the DPDs, unless material considerations indicate otherwise. The Core Strategy is a DPD.

Landbank:

The total amount of permitted reserves of a mineral within the County.

Local Biodiversity Action Plan (LBAP):

At the 1992 Rio Earth Summit, over 150 countries pledged to conserve their dwindling biodiversity. Britain has already published a UK Biodiversity Action Plan. It is now encouraging local people and local organisations to form partnerships that can produce and deliver Local Biodiversity Action Plans (LBAPs). The LBAP will provide a local response to the UK Government's National Action Plans for threatened habitats and species. It will contribute to national targets wherever these are relevant to Warwickshire, Coventry and Solihull but will also set local targets. It will also contain action plans for all our local habitats and many of our threatened and declining local species. Warwickshire LBAP is due to be fully launched in 2006.

Local Development Document (LDD):

The generic name given to all documents that make up the Minerals and Waste Development Framework.

Local Development Scheme

The Local Development Scheme is a public "project plan" identifying which local development plan is to be produced and when.

Local Geodiversity Action Plan (LGAP):

Are a mechanism for co-ordinating and delivering local geological conservation adapted from the strategic approach for Biological conservation, (Local Biodiversity Action Plans)

Mineral Consultation Areas (MCAs) :

MCA's define broad areas in which the presence of minerals resources has been identified but not assessed in detail. Currently Warwickshire County Councils MCA's define areas where there is a presence of **aggregate resources**. This has been supplied to all five District Councils within the County. As Mineral Planning Authority Warwickshire requires to be consulted on all planning applications falling within the Mineral Consultation Areas with the following exceptions.

- Development in accordance with the allocations of an adopted or deposited local plan
- Householder applications such as extensions to houses
- Reserved Matter applications unless the Mineral Planning Authorities specifically requested consultation at the Outline stage
- Minor Developments, such as fences, walls, bus shelters
- Applications for listed buildings unless specifically requested
- Advertisement applications
- Extensions or alterations to an existing use/building which do not fundamentally change the scale and character of the use/building, but **sub-division of a dwelling will require consultation**

- Developments requiring permission by virtue of a Direction under Article 4 of the Town and Country Planning General Permitted Development Order 1995

District Councils may be required to ensure that applicants provide evidence that for developments within MCA's the mineral potential of the area has been properly investigated and where sterilisation of reserves would occur, then planning permission should be refused unless overriding considerations exist.

Mineral Development

Any activity related to the exploration for the extraction and working of minerals, including tipping of spoil and ancillary operations such as the construction and use of processing plant.

Mineral Reserves:

Mineral deposits which have been investigated and are proven to be of economic importance due the quality, quantity and nature of the deposit.

Mineral Resource:

A potential source of a mineral where the deposits nature, quality and quantity has yet to be assessed or is not yet economic.

Mineral Safeguard Areas:

These are clearly identified sites where mineral reserves are known, assessed and are very likely to be subject to a planning application for extraction in the near future. Warwickshire would expect to be consulted in the event of any planning application or proposed development within these sites and where sterilisation of the reserves would occur permission should be refused unless overriding conditions exist or the mineral could be extracted prior to development.

Minerals Allocations Development Plan Document:

This will provide detailed land allocations for specific mineral developments and has the potential to include criteria based polices for site selections.

Minerals and Waste Development Framework (MWDF):

A 'folder' containing all the Local Development Documents produced by Warwickshire for Minerals and Waste and therefore contains all the planning policies.

Minerals and Waste Development Scheme (MWDS):

The project plan and timetable for the preparation of the Minerals and Waste Development Frameworks and all its constituent documents.

Minerals Core Strategy Development Plan Document:

A document which sets out the long term vision, objectives and strategy for mineral development across Warwickshire up to 2021, and provides the framework for mineral development control.

Minerals Local Plan for Warwickshire:

Detailed statutory land use plan adopted by Warwickshire in 1995 which sets out the specific policies and proposals to be applied to planning applications for the working of minerals in Warwickshire. The Minerals Local Plan is saved until September 2007. The Minerals Development Framework will replace this document.

Permitted Reserves:

The quantity of mineral which is still in the ground but there exist a planning permission for its extraction. *(see Landbank)*

Preferred Areas:

Areas which have known economic deposits of minerals and have been examined both against environmental constraints and mineral content. Their identification confers a general presumption in favour of proposals for extraction within them.

Primary Aggregates:

Material extracted or produced from naturally occurring mineral deposits used as an aggregate.

Regional Spatial Strategy (RSS):

The strategic plan setting out the region's policies elation to the development and use of land. This is a statutory plan and will form the basis for preparing Local Development Documents. The West Midlands RSS It is prepared by the West Midlands Regional Assembly acting in their role as the Regional Planning Body for the West Midlands.

Restoration:

Once mineral developments have ceased sites are required to be returned to an acceptable environmental state whether this be a continuation of the existing land use or the creation of a new one.

Secondary Aggregates:

These are materials which originate as waste products from quarrying and mining activities or as a by-product from an industrial process which can be processed and used as an aggregate in the construction industry. Examples include power station ash and colliery spoil.

Statement of Community Involvement:

A document which outlines the standards and approach that the County will undertake in engaging stakeholders and the local community in producing it Minerals and Waste plans.

Sterilisation

This occurs when developments such as housing, roads or industrial parks are built over potential mineral reserves.

Sustainability Appraisal:

This is a statutory requirement of the 2004 Planning Act. Sustainability Appraisal is an evaluative process for assessing the environmental, social and economic effects of all plans and programmes and appraising policies to ensure they reflect sustainable development objectives.

Waste Core Strategy:

This sets out the long term vision, objectives and strategy for waste development across the County up to 2021 and provides the framework for waste development control.

Waste Allocations Development Plan Document:

This will provide detailed land allocations for waste related developments and criteria based policies where this is not possible.

West Midlands Regional Aggregates Working Party.

A working group which draws its members from the Mineral Planning Authorities of the West Midlands, representatives of the aggregates industry and central government established to consider and help plan for the supply of aggregates.

Appendix A

DEVELOPMENT OF THE PREFERRED OPTIONS FOLLOWING CONSULTATION ON THE ISSUES AND OPTIONS PAPER.

INTRODUCTION

Warwickshire County Council consulted on the Issues and Options between 28th July and 8th September 2006. 64 responses have been received; the comments have been listed in full in Appendix A. WCC have considered all the comments from the completed questionnaires and made our own comments where necessary alongside each response. In addition comments recorded from the Workshops, Forums and meetings with members of the public and operators have been assessed and incorporated where necessary. This analysis has enabled the County Council to reconsider the initial options and has guided the preparation of the Preferred Options.

NB Each section summarises the responses and pulls out the main thrust of the respondent's comments to explain how each preferred option was reached before setting out the preferred option.

The Vision (Q2)

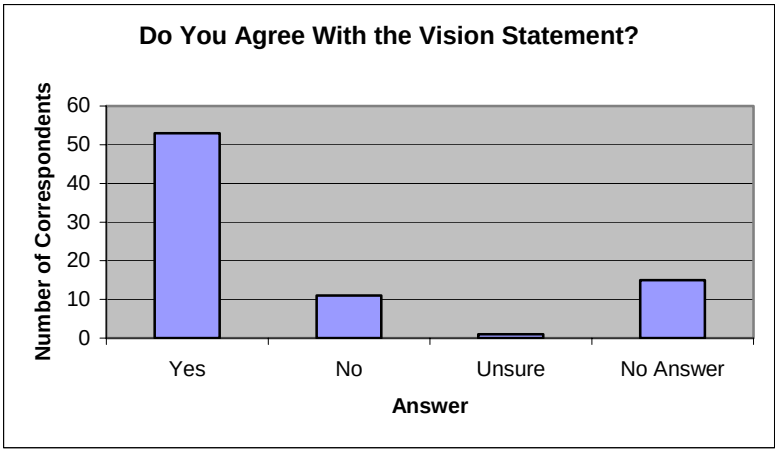
The comments can be summarised as being generally supportive of the vision. However, there was concern that more emphasis should be placed on "local" need rather than "national" need. In addition there were comments that "regional" need should be added. It was felt that the statement could be more positive in a number of areas including adding words such as "securing minerals" rather than just managing the supply; and promoting economic benefits while stressing the importance of environmental protection.

The Vision for the Minerals Development Framework at the Issues and Options stage was as follows;

"To maintain and manage the long term supply of minerals extracted from Warwickshire which serve local and national needs whilst aiming to protect and enhance the environment and promote long term community benefits"

From the questionnaire responses summarised above which have been received and the results of the SA, we have amended the Vision to;

"To secure and manage the long term sustainable supply of mineral both primary and secondary whilst serving local regional and national needs whilst conserving and enhancing the environment and promoting long term community and economic benefits."



Option	Number of Correspondents
Yes	53
No	11
Unsure	1
No Answer	15

Objectives of the Minerals LDF (Q4)

There were numerous requests to alter parts of the individual bullet points although there were not many requests to add new objectives. In terms of additional objectives requested to be added – specific issues include geology, promoting rail and other sustainable forms of transport, more encouragement to recycle materials and sterilisation by incompatible development. It is considered that recycled materials are now covered in new bullet point 2 and that alternative forms of transport are covered in new bullet point 6. Geological issues we consider to be covered under the natural and historic environment and should not be included under a separate bullet point. It was felt that we would have to include many more objectives if we looked too closely at specific issues at this stage. The sterilisation issue and safeguarding of minerals is extremely important should be included in the objectives and it has been possible to incorporate these in objective 1. It was considered that recycling should be moved up the order to number 2 to reflect the increased importance Government places on the issue.

The original objectives set out in the Issues and Options were as follows:

1. To help deliver sustainable mineral extraction by promoting the prudent use and conservation of Warwickshire's natural resources.

2. To maintain the supply of minerals required to support economic growth at the national, regional and local level.

3. To protect the natural and historic environment and mitigate potential adverse effects associated with mineral developments.

4. To have regard for the concerns and interests of local communities and protect them from unacceptable environmental effects resulting from mineral developments;

5. To minimise the impact of the movement of bulk materials by road on local communities and where possible encourage the use of alternative modes of transport.

6. To ensure mineral sites are restored to a high environmental standard once extraction has ceased.

7. To promote the use of secondary and alternative materials which will reduce the overall demand for primary mineral extraction.

Following the consultation process and full consideration of the responses, the objectives have been amended to the following:

1. To help deliver sustainable mineral ***development*** *by promoting the prudent use and* ***safeguarding*** *of Warwickshire's mineral* ***resources to help prevent sterilisation.***

2. To promote the use of secondary and alternative materials **to** reduce the overall demand for primary mineral extraction**.**

3. To ***secure*** *the supply of minerals required to support* ***sustainable*** *economic growth at the national,* ***regional*** *and local level.*

4. To ***conserve and enhance*** *the natural and historic environment and mitigate potential adverse effects associated with mineral developments.*

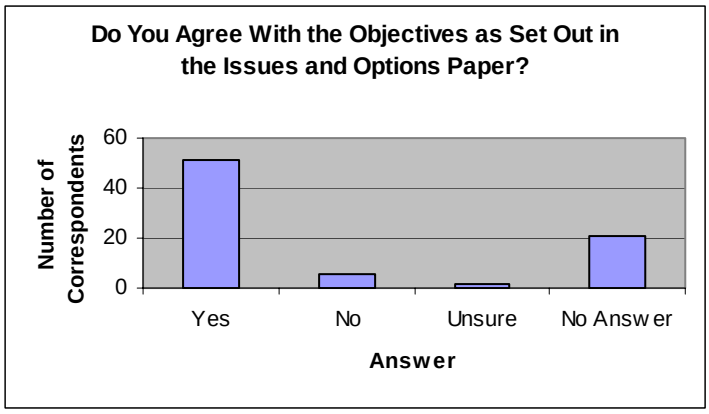
5. To have ***full*** *regard for the concerns and interests of local communities and protect them from unacceptable environmental effects resulting from mineral developments;*

6. To minimise the impact of the movement of bulk materials by road on local communities and where possible encourage the use of alternative modes of transport.

7. To ensure mineral sites are restored to a high ~~***environmental***~~ *standard once extraction has ceased.*

8. ***To promote the local use of extracted or recycled materials to aid local distinctiveness and reduce transportation.***

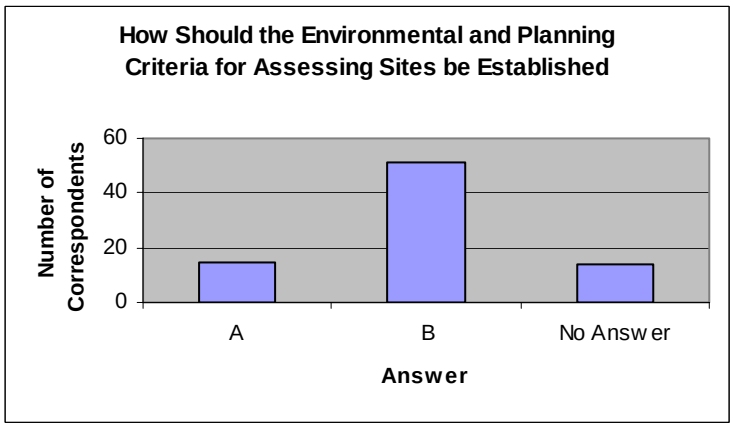
9. 9. ***To take account of the impacts of climate change in planning for the future supply of minerals .***



Option	Number of Correspondents
Yes	51
No	6
Unsure	2
No Answer	21

Key Issue 1: Criteria for Assessing Sites (Q5b)

The feedback from the questionnaire was that Option B was more relevant to continuing public involvement and consideration of specific issues. In addition it was more comprehensive and allowed further consultation and consideration than Option A. The Preferred Option should be rephrased. It is clear that the industry favours clear definitive policy, legislation and codes of practice ie. Option A whereas they may be possibly concerned regarding the exact nature of the consultation outlined in Option B which could make decision making more uncertain.



Option	Number of Correspondents
A	15
B	51
No Answer	14

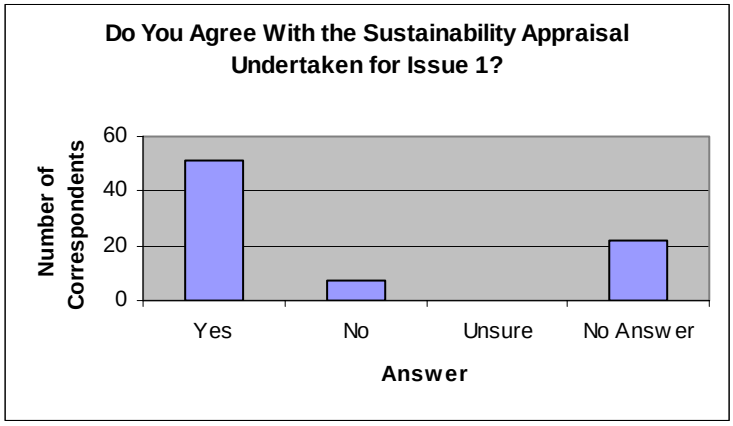
Option B – Additional Considerations Policies and Constraints (Q6)

Question 6 asks for comments on what additional considerations policies and constraints could be identified. The question generated a list of issues that would be expected to be drawn out of a standard minerals planning application and indeed will be included in the new MPS1 when it is available. Certain specialists who responded obviously tend to concentrate on their particular subject area eg geology or

nature conservation. However, one or two issues were consistently highlighted; impact on the transport network, community consultation, and carbon emission levels.

Sustainability Appraisal for Key Issue 1 (Q7b)

Generally comments supported the Sustainability Appraisal results and said that it was fair and accurate assessment. Some of the respondents concluded that the process was quite a crude appraisal because there are so many different assumptions and development scenarios that it is quite possible to generate a variety of SA outcomes. The SA therefore should be robust enough to embrace a variety of scenarios. **The Highways Agency has requested that a new criterion is added for transport impact**….One area where the SA has been criticised is the relationship between minerals and waste which has not been brought out fully. This is one area where the appraisal method should be reassessed.

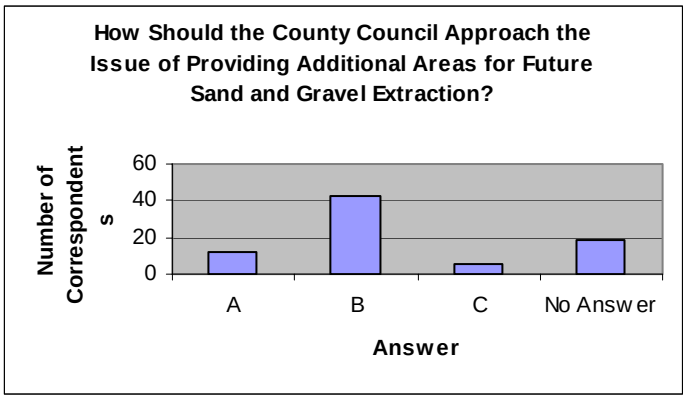


Option	Number of Correspondents
Yes	51
No	7
Unsure	0
No Answer	22

Key Issue 2: Sand and Gravel Extraction (Q8b)

It was considered important that minerals deposits were not sterilised by other forms of development and for this reason Option B would allow greater protection than just putting forward Areas of Search. If Option C were chosen, given the likely future development pressures based on the household projection figures outlined in the Regional Spatial Strategy, many deposits could be left without protection and lost for the future. In addition given the future likely growth pressures as identified in the RSS, this is exactly the time that we should be safeguarding deposits to cater for increased demand for aggregates above the RAWP figures if necessary. This approach would also allow flexibility for when developments are approved but would enable minerals to be worked prior to the developments taking place. This approach is also the one which is advocated in MPG1 Annex A as some respondents have stated.

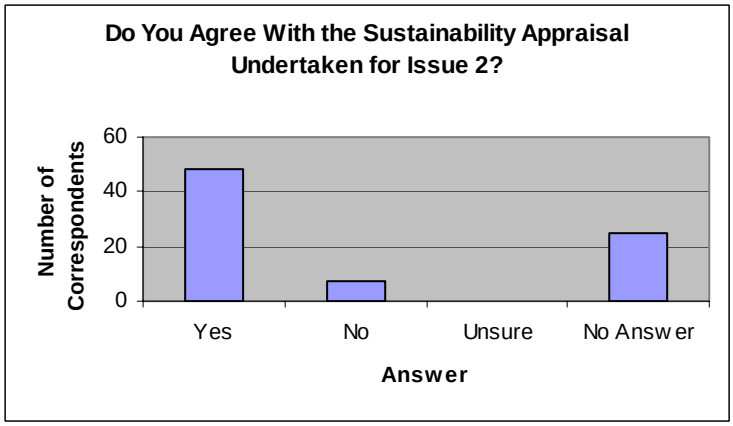
It was felt that in Areas of Search, it should be stressed there was no presumption for development unless a rigorous assessment had been made for a particular site and that the application complied fully with all relevant local and national policy and that it accorded with all material considerations.



Option	Number of Correspondents
A	12
B	43
C	6
No Answer	19

Sustainability Appraisal for Key Issue 2 (Q9b)

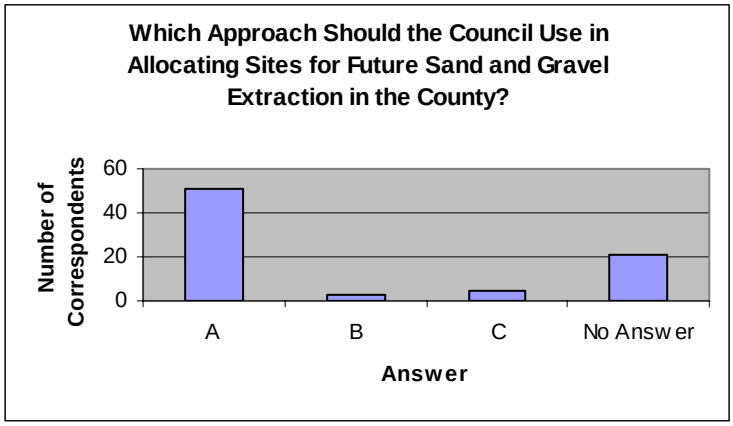
The SA appears to have been well received for this issue. General comments on the SA are generally the same as for other issues and need not be repeated. The consensus was that Options A and B were plan led; non-industry responses were happy with this approach stating that Option C was perhaps too developer led but more flexible. More analysis of the short term effects on biodiversity and the historic environment was raised as a concern.



Option	Number of Correspondents
Yes	48
No	7
Unsure	0
No Answer	25

Key Issue 3: Planning Location for sand and Gravel Extraction in Warwickshire (10b)

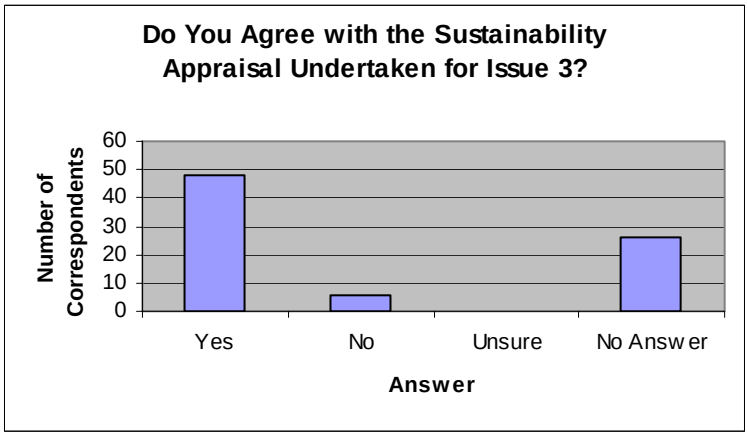
Option A was generally considered to be the best option but if demand could not be met then Option B could be used. Option A assumes that there are enough reserves available in existing operations; but at the same time they might not have been through such a rigorous site selection as would be required for new operations. Option A would probably have less environmental impact on the countryside and would not blight other communities with the threat of development but there are obvious concerns that some local communities close to existing sites would be accepting any adverse impacts for a longer period of time. There is concern about the companies leaving sites dormant; it has been suggested that these companies are penalised by refusing future planning applications. However in practice this is unworkable providing the company is not in breach of its conditions. Whichever option is chosen best available practice should be used to maximise mineral recovery.



Option	Number of Correspondents
A	51
B	3
C	5
No Answer	21

Sustainability Appraisal for Key Issue 3 (Q11b)

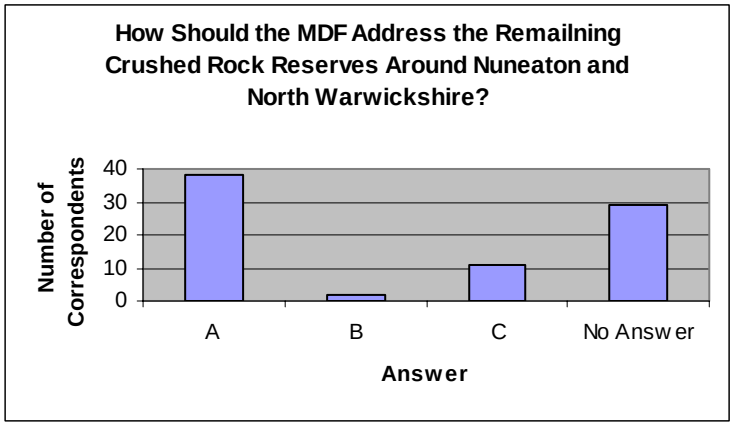
The respondents generally appeared to suggest that Option A appears to be the most sustainable option. The relationship of waste and minerals is again questioned, and recycling, if part of the minerals operation, could be a more sustainable option than a site without a recycling element. Option A would be likely to be able to make use of existing infrastructure and therefore would be more sustainable in most, but not all, cases.



Option	Number of Correspondents
Yes	48
No	6
Unsure	0
No Answer	26

Key Issue 4: Crushed Rock Production (Q12b)

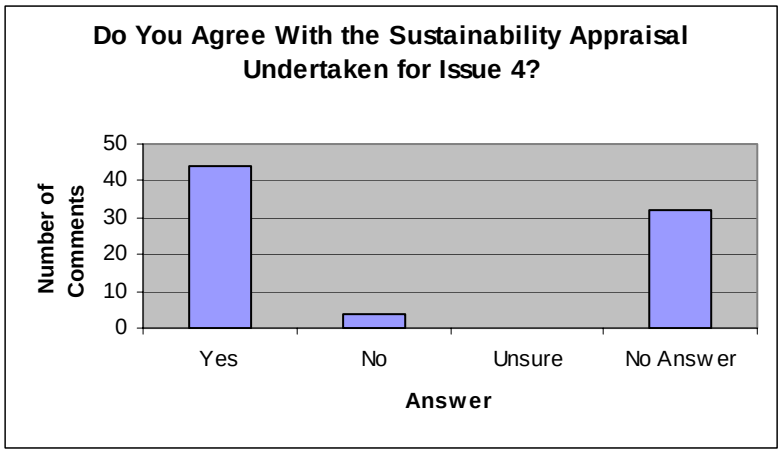
A broad analysis of the responses reveals that a combination of Option A (to allocate) and Option B to safeguard would be the most appropriate way to proceed to the Preferred Option. At the same time some benefits have been identified with Option C which it is considered would allow for a wider consideration of the alternatives. The benefits of allocation of sites include greater certainty of development for both the industry and local communities. In what are relatively small areas where deposits are found; mainly in the north of the county. It was also felt that if new geological information comes forward in respect of crushed rock that deposits should be safeguarded from sterilisation. The importance of further consultation prior to site allocation is considered important by several respondents and that there should be a presumption against development in safeguarded areas where there has not been full site assessment.



Option	Number of Correspondents
A	38
B	2
C	11
No Answer	29

Sustainability Appraisal for Key Issue 4

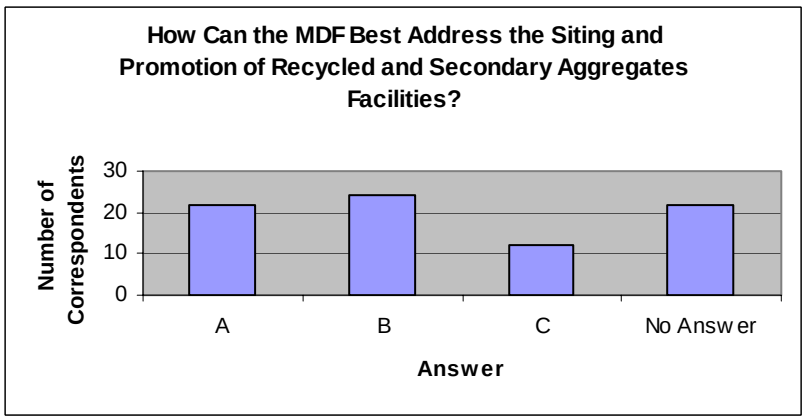
The majority of the respondents agree with the results of the SA which favoured Option A but also saw benefits within both Options B and C. The Sa supports the delivery of certainty and for this reason Option A performs slightly better than the other options.



Option	Number of Correspondents
Yes	44
No	4
Unsure	0
No Answer	32

Key Issue 5: Secondary and Recycled Aggregates (Q14a)

The main conclusion to be drawn out of the responses is that steering development to existing quarries (Option A) may have less environmental impact on the ground, but may be less sustainable in terms of transportation of materials through rural areas. It was noted that existing quarries have greater experience and know how of how to deal with secondary aggregate waste. Similarly Option B might be more sustainable because recycled waste could be dealt with close to where it is produced (mainly demolition sites in the urban areas) but could create problems in urban areas through the production of dust, noise and loss of other amenity to local communities. There is also support for Option C as well as the other options. Although less structured in terms of location, than the other options, provides more flexibility; it has been pointed out that there is no particular stereotype for recycled waste sites from the construction industry and that sources of material arsing from recycling are rarely controlled by primary aggregate producers. Therefore, what has been brought out the consultation is a consensus that there should be variety of locations for waste recycling which depend locational factors and individual site characteristics are more important than specifying a particular type of site. These should be close to centres of population where they will have least environmental impact.



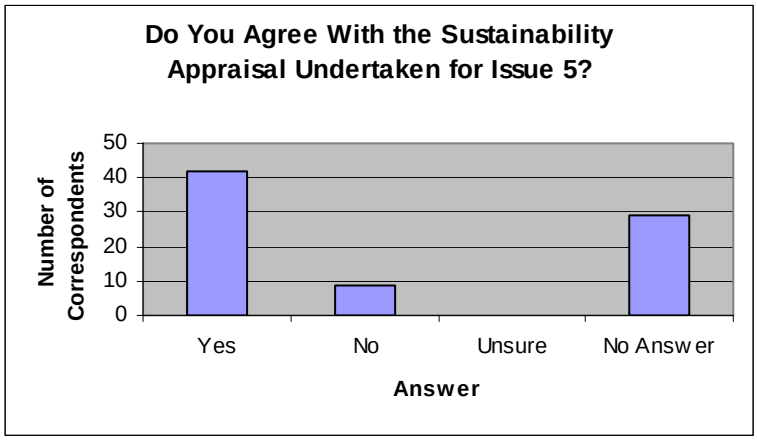
Option	Number of Correspondents
A	22
B	24
C	12
No Answer	22

Sustainability Appraisal for Key Issue 5

There is general agreement with the outcome of the SA with a few exceptions. This supports a mixture of Option A and Option B.

In respect of Issue 16 there was a query as to why Option B would allow more time to recycle aggregates? It was assumed that Options A and B would form the basis of allocated sites as they specify types of location, whereas Option C would rely be more developer led. In overall timescales the developer led approach could leave much less time to assess a site so that it would leave little time to plan for innovative environmental technologies than the other options. Given the timescale of plan production and approval of site allocations prior to applications coming forward this could leave a lot longer for new technologies to come forward.

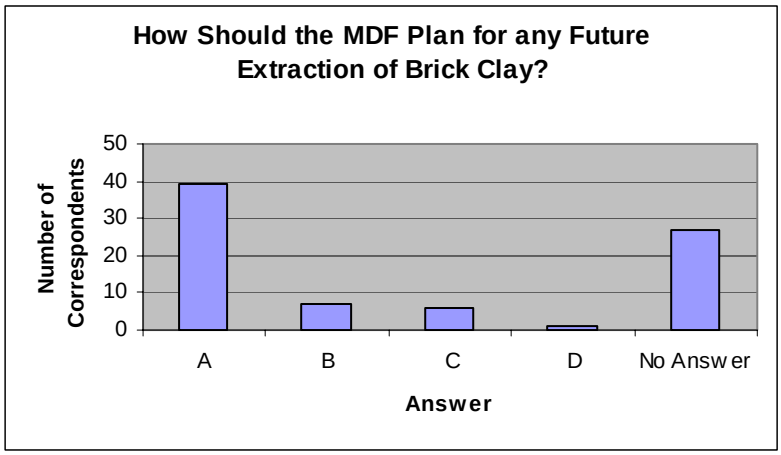
There was also a query regarding why Option A would protect the environment and historic environment better than Option B. Admittedly, this would be easier to assess at site allocation stage. However it is assumed that a recycling operation would be built on an existing quarry. In which case the environmental safeguards would be up and running and the operation would be built on previously disturbed land. A site in an urban area could have issues regarding the environment and the historic environment that may have not been assessed as well as a quarry application. This issue may be one instance where the SA requires more site specific information to be able to make an adequate assessment.



Option	Number of Correspondents
Yes	42
No	9
Unsure	0
No Answer	29

Key Issue 6: Brick Clay (Q16a)

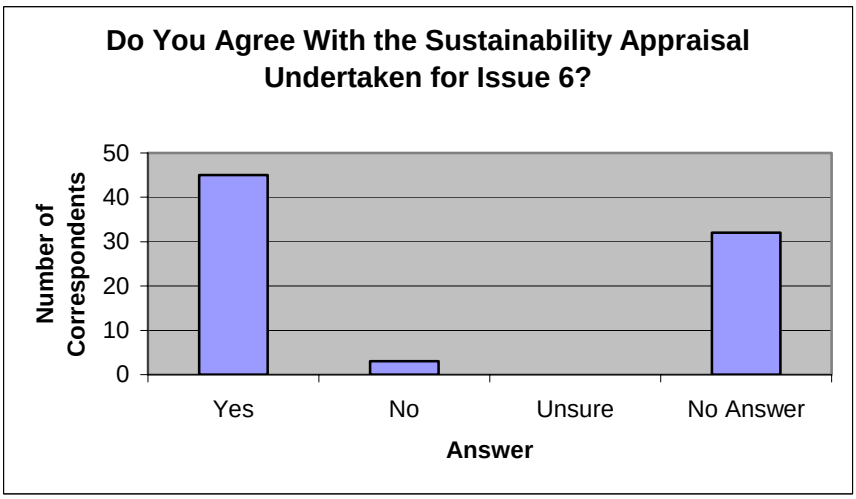
As with other issues the allocation of sites (Option A) and a plan led approach rather than developer led, would guarantee greater certainty and prevent areas being blighted. Respondents saw merit in Options A, B, and C with a view that a mixture of all three options could make up the Preferred Option although Option C was seen by some as being too broad brush with some respondents saying that it was necessary to protect large areas because no-one is sure where all the deposits are, whereas another response suggested that only allocated sites should be used, which are economically viable. If Option A was chosen as the preferred option, respondents were concerned that full consultation was carried out and that full assessment of the impacts are considered prior to any applications being submitted. In addition there should be some provision for new sites not identified in any of the areas at present.



Option	Number of Correspondents
A	39
B	7
C	6
D	1
No Answer	27

Sustainability Appraisal for Key Issue 6

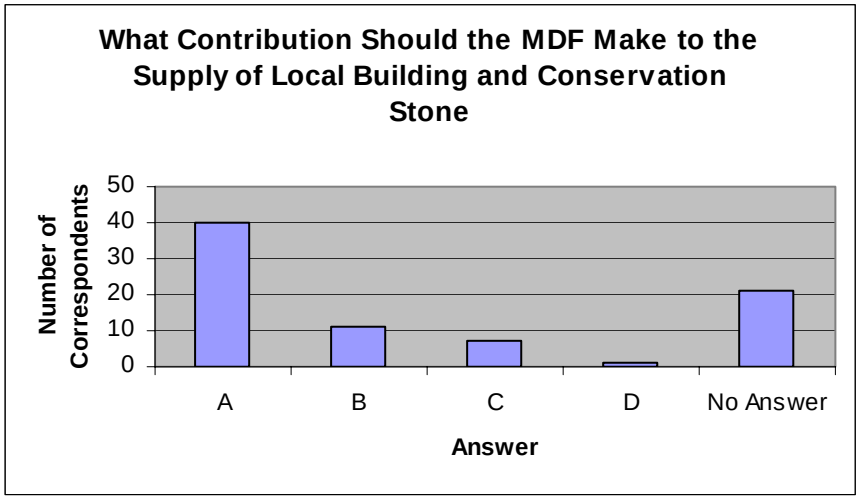
Again the results of the SA showed it to be quite well supported; again with a few minor queries. One response queried whether Option A would be the best option in terms of safeguarding reserves and another suggested that Options B or C should be identified as having a greater effect on enfranchising the community. Many of the comments on the SA are repeated or are just general comments on the whole procedure.



Option	Number of Correspondents
Yes	45
No	3
Unsure	0
No Answer	32

Key Issue 7: Building Stone (Q18a)

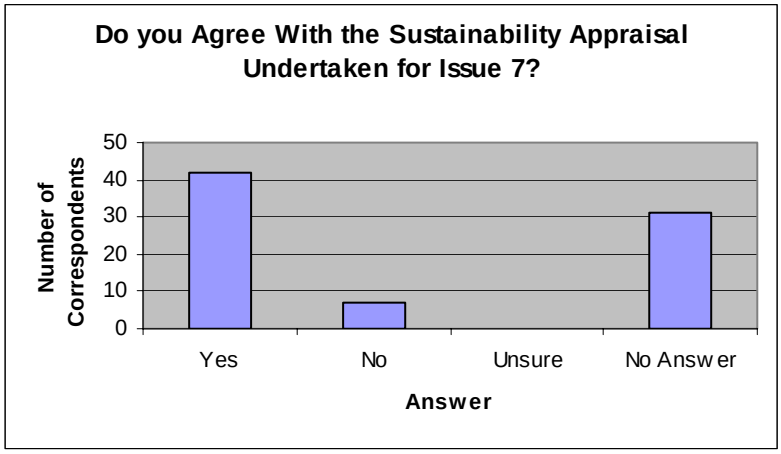
It is recognised in the responses that local building stone is important for the conservation and restoration of our built heritage and therefore Option D is discounted. It is recognised that the types of quarry operation connected with building stone is likely to be small scale and may often be for shorter periods such as for the period of a building restoration project. Similar issues were raised as with other minerals; i.e. that generally respondents liked the idea of allocating preferred areas because it provided greater certainty, while at the same time it was considered important to safeguard wider areas from sterilisation without at the same time blighting areas from any future development. A mixture of some of the options was considered feasible with Option A gaining most support and Option C being well supported for its protective function. There is a concern that quarrying of local stone is more likely to take place in some of the more picturesque areas such as the Cotswolds AONB and that such development should be resisted unless it is small scale and there is strong control to protect the character and appearance of the area.



Option	Number of Correspondents
A	40
B	11
C	7
D	1
No Answer	21

Sustainability Appraisal for Key Issue 7

The SA is generally supported. Particular issues or concerns arising from the building stone SA ie that consideration should be given to the amount of overburden that has to be removed in order to reach the stone. There were comments that the SA gives insufficient information and that the SA is irrelevant because there are so few differences between the different options. This approach has however been taken with all the individual minerals and appears to have been well supported in the majority of responses. In addition one respondent said that the waste hierarchy is relevant in this instance in terms of recycling and re-use opportunities. Also the short term effects upon biodiversity and the historic environment need further consideration.

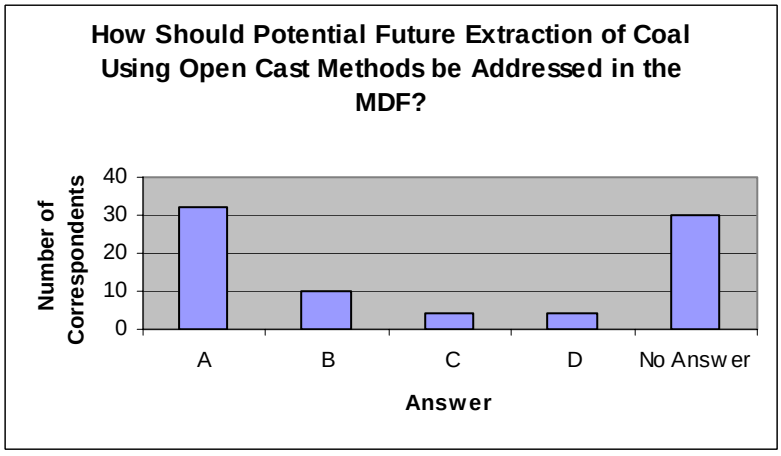


Option	Number of Correspondents
Yes	42
No	7
Unsure	0
No Answer	31

Key Issue 8: Opencast Coal (Q20)

Responses to this issue were fairly divided along several lines. Some responses stated that areas of preferred extraction as outlined in Option A would provide the mechanism to allow for areas to be prioritised while at the same time allowing time for further survey and technical work which would benefit biodiversity and geology and the historic environment. In one case Option D was chosen on the basis that the Options seemed to be pushing open cast to the north of the county rather than the south. However the coal in the south of the county can only extracted by deep mining and therefore these comments would be more relevant to Issue 9 (Deep mining).

Several responses stated that open cast mining should not take place in any form in the county as the production of energy form fossil fuels will lead to the increase in greenhouse gas emissions and at the same time would have an adverse environmental impact especially on sensitive landscapes. There was some support for safeguarding coal reserves for the future.



Option	Number of Correspondents
A	32
B	10
C	4
D	4
No Answer	30

Sustainability Appraisal for Key Issue 8

Again the SA was generally accepted. Respondents in some cases were concerned that the SA was possibly too biased towards the certainty of development. A comment was made that there was no reference to carbon emissions and that coal utilisation for energy production could not be considered sustainable in the first place.
Concern was expressed that coal deposits are thin in many areas and may not be cost effective to extract. However it is considered that this would be for the industry to decide and the County Council's function is to put the framework in place for developers to use if they consider a scheme cost effective, subject to environmental assessment.

The outcome of Option D is criticised for stating that it would allow less time for focussing on new objectives. It was assumed that Options A, B and C would form the basis of identified areas in the plan as they are specific locations, whereas Option D would rely be more developer led. In overall timescales the developer led approach could leave much less time to assess a site so that it would leave little time to plan for innovative environmental technologies than the other options. Given the timescale of plan production and approval of site allocations prior to applications coming forward this could leave a lot longer for new technologies to come forward.
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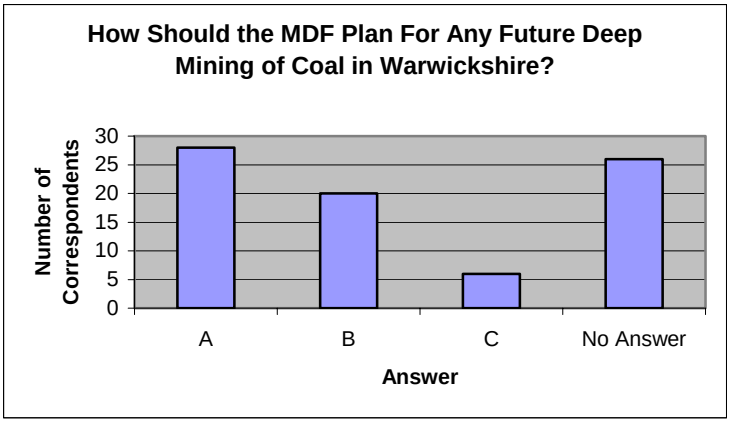
Option	Number of Correspondents
Yes	36
No	13
Unsure	0
No Answer	31

Key Issue 9: Deep Mining of Coal (Q22)

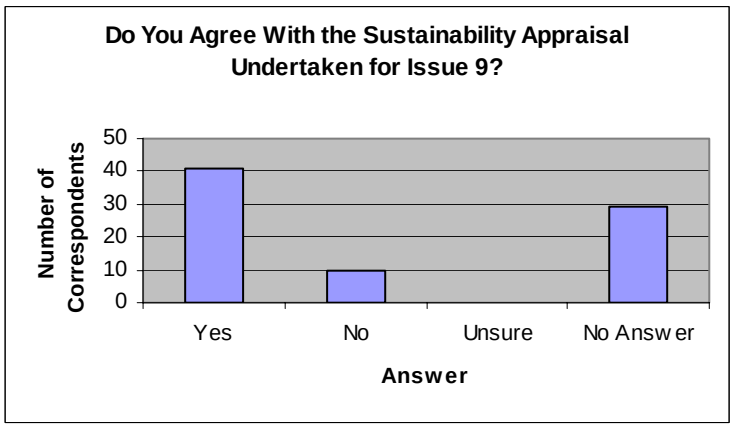
Several responses refer specifically to Daw Mill and any possible extensions connected to that site. In one case the response suggests that Daw Mill should form the basis of a separate development option. This approach might not be appropriate at the core strategy stage. Again some respondents have raised the concern that fossil fuels should not be used for energy production. There was not a great deal of support for Option C as a developer led approach was not considered to be satisfactory. Options A by examining sites through the plan process was considered to ensure that all sectors of the community and the development industry would be able to engage better and longer with the local community.



Option	Number of Correspondents
A	28
B	20
C	6
No Answer	26

Sustainability Appraisal for Key Issue 9

There are not many issues which have been disputed in the SA which again is considered to be satisfactory overall. There is agreement that the assessment ratings have been carried out correctly, but the summary does not reflect that Option A has been assessed as more sustainable than Option B. The relationship with waste must be properly explored in this issue for the preferred options stage. In addition there is a comment that states Option A offers no more certainty than specific policies following selection of Option B.



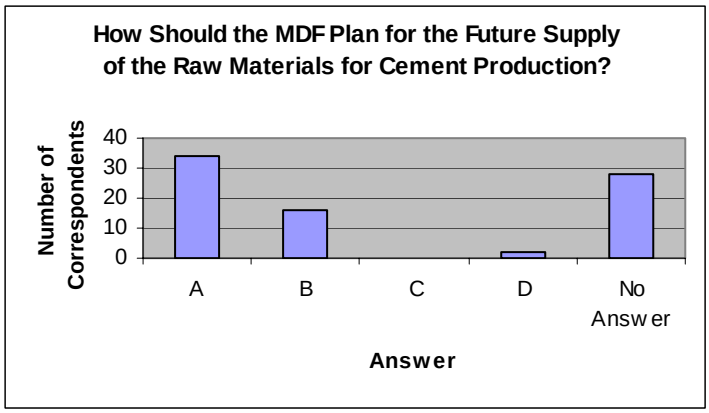
Option	Number of Correspondents
Yes	41
No	10
Unsure	0
No Answer	29

Key Issue 10 – Future Supply of Raw Materials for Cement (Q24)

In general a plan led approach and in particular Option A was well supported but it was considered that Option B also had some value to be used in conjunction with option A, as the two were not mutually exclusive. Safeguarding resources was considered the most vital component and hence the knock on implications of safeguarding employment. Also it had greater clarity on the location of development. Some respondents requested that Areas of Potential Extractions were included as that sounded more positive than safeguarding. Longer timescales in the plan process were considered to be more

beneficial to the consideration of biodiversity, geology and the historic environment. However the short term effects of these issues require greater consideration.

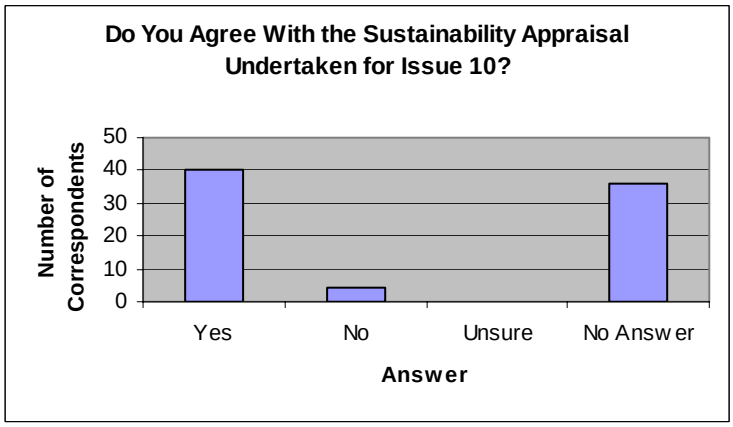
Other specific points included that fact that there is no reference to the chalk component in terms of its long term supply. Biodiversity should be a key issue in the Southam area as the Lias quarries support a unique habitat and fossil sites.



Option	Number of Correspondents
A	34
B	16
C	0
D	2
No Answer	28

Sustainability Appraisal for Key Issue 10

Option A appeared to offer greater benefits than the other options in terms of the Sustainability Appraisal. The comments were broadly in agreement with the SA assessment. Option A offered greater certainty of development and as such would enable achieve greater protection of the environment. Concerns were raised about the possibility that safeguarding could condemn areas to permanent dereliction if no development took place and obviously the land was in a poor condition initially. In addition one respondent requested that existing quarries which have not been adequately restored were restored fully to recreational uses.



Option	Number of Correspondents
Yes	40
No	4

Unsure	0
No Answer	36

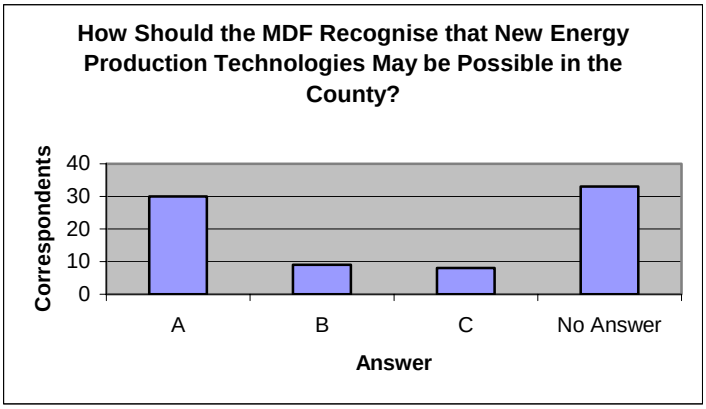
Development of the Preferred Option

The issue needs to be considered in the light of the situation that there is a high landbank in the county of the raw materials for cement production. For this reason allocation of sites is not necessary as further allocation would only cause disruption and uncertainty for more communities and could lead to blighting over a long period of time. Therefore we are moving towards a preferred option which seeks to designate minerals safeguard areas where there are known deposits and where sites are likely to come forward.
Nb – if there is a massive landbank – how will sites come forward?

Key Issue 11: Onshore Oil, Gas Geothermal Potential

The responses tended to agree that full consultation on new proposals was essential, especially in respect of this issue because the future technologies were difficult to predict and, therefore, comment on in this instance. For this reason and because of the nature of the type of developmental respondents understood that it would be difficult to define particular areas or sites (as in Option A) but that by producing policies only, would allow flexibility. Therefore Option C was considered to be possibly the most practical in the short term while further research was carried out in to this area. Some comments also preferred option B as being more realistic than option A and the route for unknown technology.

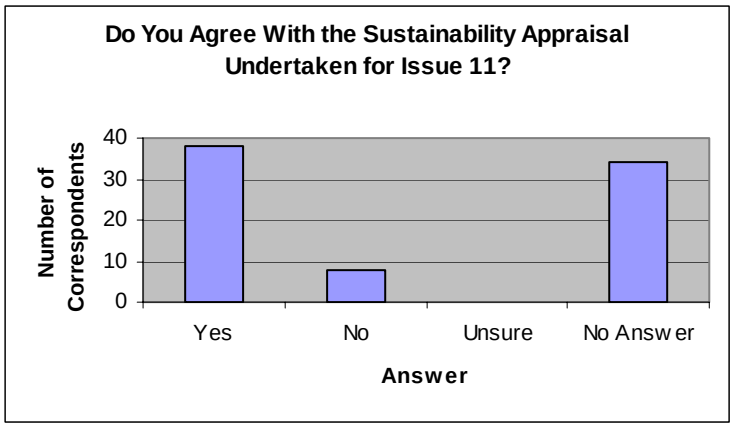
Respondents said that in practice gas and oil are probably not commercially viable but geothermal energy in particular would be a sustainable form of energy and the MDF should seek to create the conditions whereby such areas could be identified. Some respondents pointed were concerned that fossil fuels were not a sustainable form of energy and that perhaps the geothermal element of the issue could have been dealt with separately.



Option	Number of Correspondents
A	30
B	9
C	8
No Answer	33

Sustainability Appraisal for Key Issue 11

The SA was considered satisfactory as far as it went, because there is so much uncertainty in this subject area. Option A came out top in the original assessment just ahead of Option B. From the responses in one case option C was seen as possibly the most practical in the short term while further research was carried out in to this area. However, option B had support too because it could allow for innovation in rapidly advancing low carbon technologies**.**

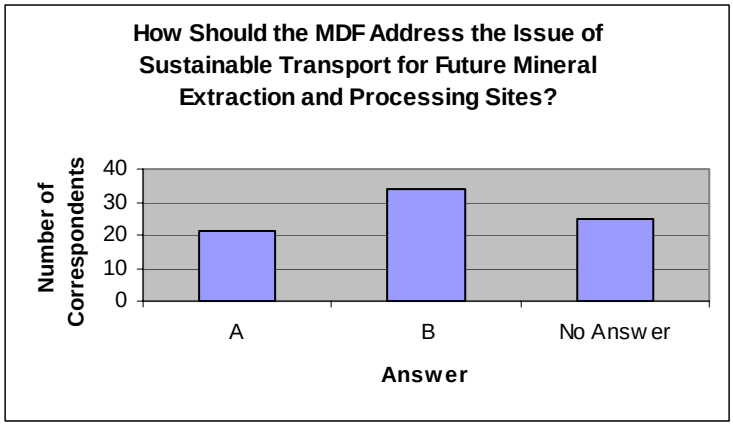


Option	Number of Correspondents
Yes	38
No	8
Unsure	0
No Answer	34

Key Issue 12 Transport (Q28b)

A broad consensus saw that there was merit both in Option A and Option B. Therefore many respondents felt that there should be a third option which is a mixture of Option A and B. Option A (concentration of mineral developments close to the principal road network) was considered to be the most pragmatic option while Option B was inevitably more sustainable in terms of reducing carbon emissions but in real terms difficult to implement on the ground unless a site was close to existing facilities. Underground pipelines were also mentioned as another way of transporting certain minerals which would have little environmental impact. Respondents have also differentiated between canals and waterways from rail which is seen as more realistic for implementation purposes.

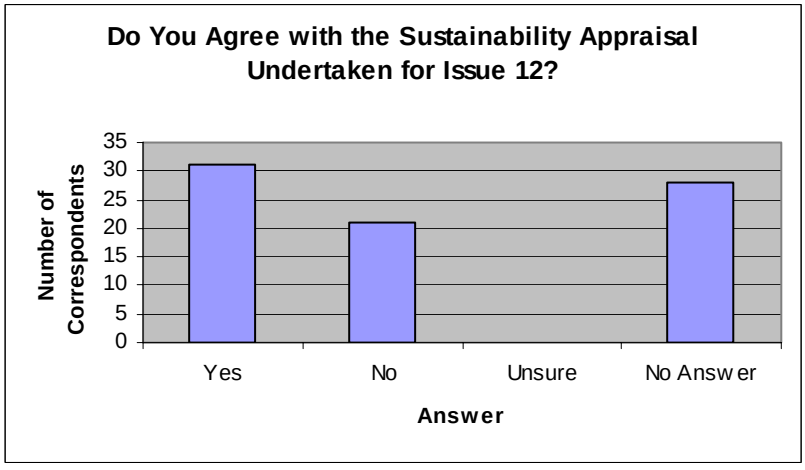
Specific concerns include the fact that by reopening disused railways there can be a loss of biodiversity in the long term. Comments were made about traffic and especially HGV's on country roads which was obviously not desirable and which both options could help to alleviate. Finally there were some comments that stated that functions should be combined on the same site, but although good in principle, products would still have to be transported at the end of the day.



Option	Number of Correspondents
A	21
B	34
No Answer	25

Sustainability Appraisal for Key Issue 12

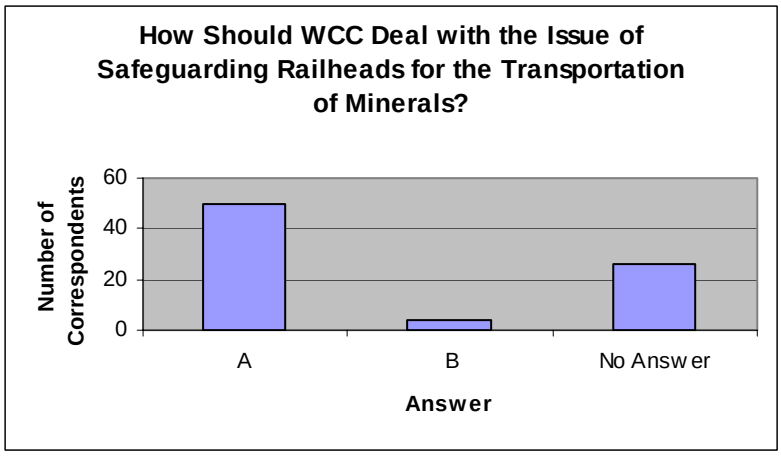
One comment said that they did not agree with the SA for objective 5 as it identifies the short term impact of new infrastructure under Option A but not the long term impact on the natural and built environment of increased road traffic and reduced tranquillity. Option A came out on top in terms of the initial SA work although Option B was also positive. Many of the particular assessments had a neutral score because there were a lot of variables which could be better assessed at the site allocation stage.



Option	Number of Correspondents
Yes	31
No	21
Unsure	0
No Answer	28

Key Issue 13 Safeguard of Railheads (Q30b)

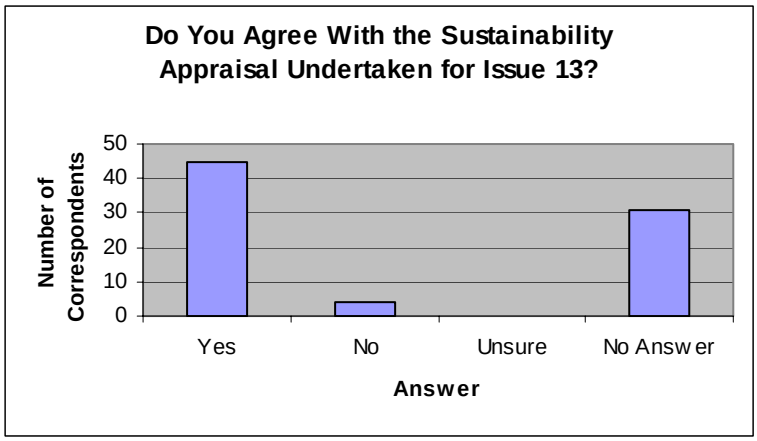
Option A would appears to have the most support of the two options because rail transport is seen as being more environmentally friendly than road and can help the reduction of carbon emissions by ensuring vehicles don't have to use the road system. It has been pointed out that the safeguarding of railheads is the most flexible option and is also in line with MPS1. Certain comments go further suggesting that not just the rail lines are preserved form development but that the whole routes or corridors of former lines are saved for the future. It was considered by some respondents that there could be associated benefits for future regeneration of the wider rail network for waste heavy goods and public transport as well as minerals. One suggestion was also to include the safeguarding of waterway wharves. Finally it was also stated that the option should have been expanded to include existing railheads as well as potential ones and that the safeguarding of railheads is the function of the county council not the district councils. The actual location of possible railheads should have been identified and set out or at least described.



Option	Number of Correspondents
A	50
B	4
No Answer	26

Sustainability Appraisal for Key Issue 13

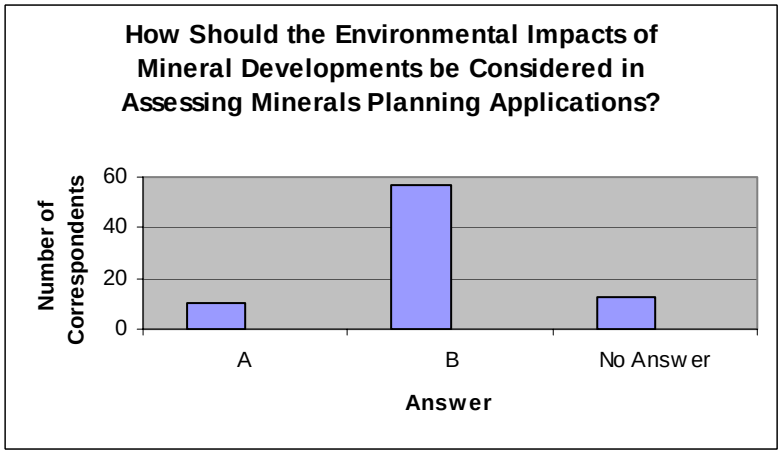
There is general support for the analysis which points to Option A as scoring slightly better than Option B. One or two respondents felt that the SA should have brought out in more fully that Option A was much more sustainable than Option B eg it could have scored more highly for heritage by showing that taking heavy lorries off the road would benefit the historic character of towns. The SA confirms people's general attitude that more needs to be done to encourage use of alternative means of transport to the road transport in whatever form.



Option	Number of Correspondents
Yes	45
No	4
Unsure	0
No Answer	31

Key Issue 14 Mitigation (Q32a)

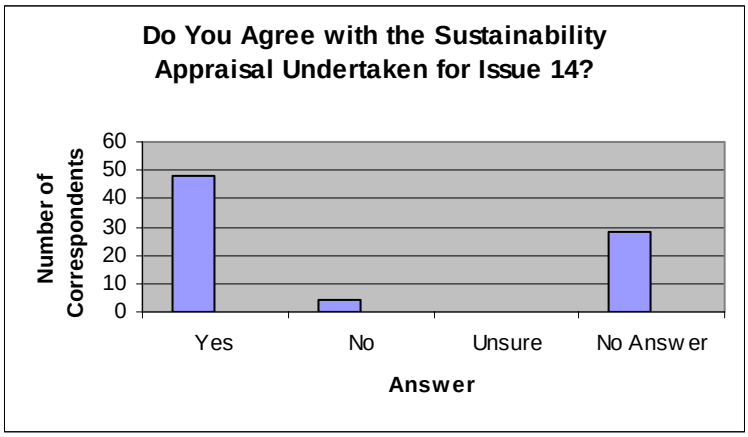
Option B was considered to have covered both the local and national perspective in terms of environmental assessment of sites in accordance with national policy and policies in respect of locally identified issues which would provide flexibility which are more specific than (Option A- the guidance in Minerals planning statements). It was considered that each minerals site has different issues and different mitigation factors would be necessary for them and therefore Option B provided that flexibility. As such a detailed policy could be more enforceable. At the same time one respondent has pointed out that local requirements should not go over and above national planning guidance eg in terms of the County Council setting its own limits on noise dust and blasting. However this was not For this reason in one or two instances option A was chosen above option B. From a biodiversity standpoint there was concern that mitigation should be used only as a last resort because it usually meant that a habitat had been lost in that instance. Mitigation therefore should not be seen as a means by developers of despoiling an area without first seeing if there are other options other than mitigation. The overall conclusion, despite some concerns about over protection by the industry, was that local environmental issues such as biodiversity, landscape character and geological issues would be better assessed under option B.



Option	Number of Correspondents
A	10
B	57
No Answer	13

Sustainability Appraisal for Key Issue 14

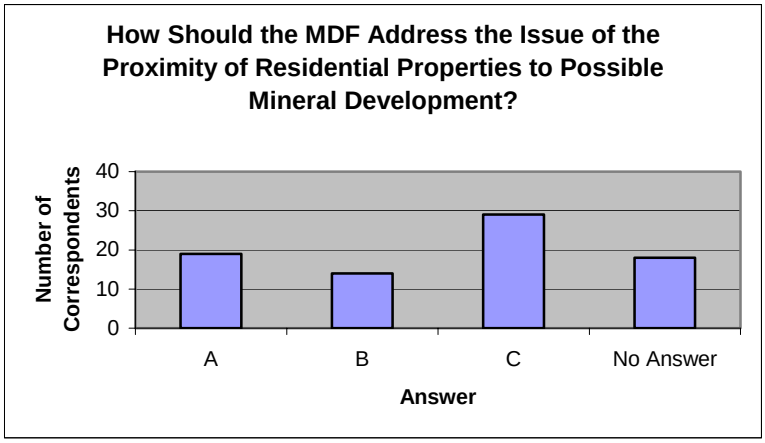
Because of a printing error on the questionnaire, there was only one space for the key issue comment and the answer the SA comment. Most respondents therefore used the space to comment on the issue rather than the SA. However most respondents broadly agreed with the SA results. Option B scored more highly than Option A. This reinforced people's opinions that national policy should form the basis of the plan but that consideration of local environmental impact issues should be at the forefront of any assessment of minerals planning applications.



Option	Number of Correspondents
Yes	48
No	4
Unsure	0
No Answer	28

Key Issue 15 Buffer Zones (Q34b)

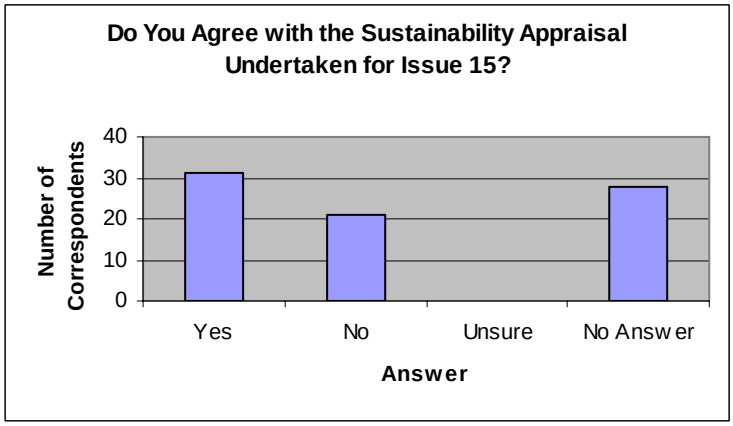
There was support for Option B as it applies flexibility to individual situations where for instance a distance of 200m might be deemed inappropriate due to the existing terrain which might make development within 200m possible or a distance greater than 200m necessary in some cases. Option C with a stipulation that the minimum distance should be 200m was also mooted several times. This would afford protection to settlements of less than 10 houses. The responses from the industry included the argument that the 200m buffer zone actually sterilises mineral resources and in many cases there may be no loss of amenity within the 200m zone provided there are adequate safeguards which have been through a thorough environmental assessment. One comment stated that buffer zones should also be applied to nature reserves and SSSI's. However this approach could sterilise even more land and if there have been thorough environmental assessments carried out through the planning process then damage to SSSI's should not occur.



Option	Number of Correspondents
A	19
B	14
C	29
No Answer	18

Sustainability Appraisal for Key Issue 15

In the process of formulating the matrix for this issue there appears to have been an error which has made the SA read the opposite to the way it should read. In fact Options B and C score more highly than Option A which was mistakenly described as the best option in the summary. Many respondents pointed this out in their responses. We would like to apologise for the error and confirm once more that Options B and C are in fact the better options in terms of the SA.



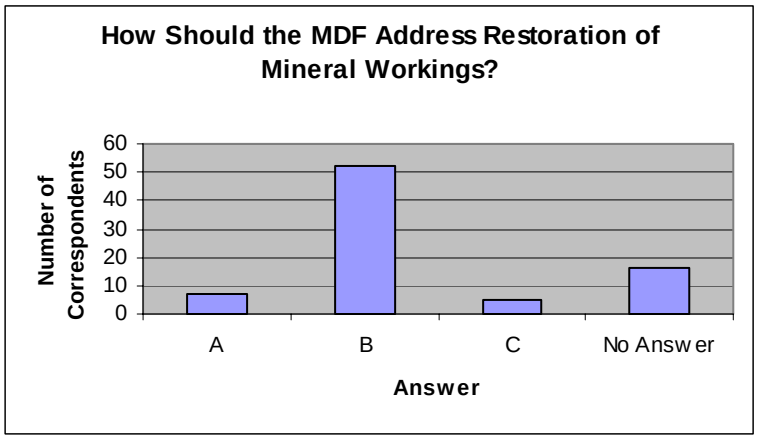
Option	Number of Correspondents
Yes	31
No	21
Unsure	0
No Answer	28

Key Issue 16: Restoration and After Use (Q35b)

This issue generated the most comments which demonstrates its importance. Option B produced the most support because of its flexibility and ability to accommodate a variety of end uses. One comment was made that Option B should be a 2 stage process whereby the end use is chosen at the start of the scheme but detailed restoration plans are not approved until the nearer the time for implementation. The reference in Option B should be expanded to informal sport and recreation. Some comments were made that water park end uses were a do nothing option which looked like a blot on the landscape. This option would be better for biodiversity, geodiversity and the historic environment and landscape character assessments could be applied; in general there would be a more holistic approach than the other options.

Option A has always been the major traditional method of determining restoration schemes with agriculture the primary end use, at least for sites in Warwickshire. Until the mid 20th century, agricultural practices helped biodiversity through the retention of meadows for grazing and hedges and trees for stock control. However, several respondents pointed out that because of modern agricultural practices agriculture is no longer as sustainable as it once was and has a much lower value for biodiversity. In addition it was pointed out that agriculture was becoming much less important as a rural land use and that diversification away from agriculture was more the order of the day.

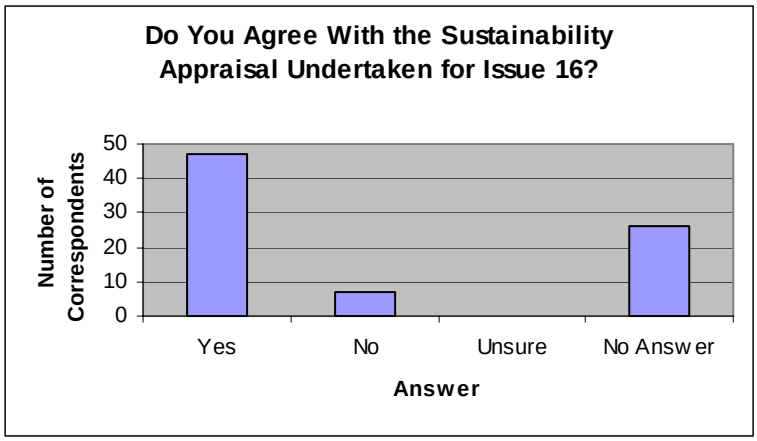
There was some support for Option C as well because it was not too prescriptive allowing schemes to be looked at on a site by site basis and any potential end uses could be tailored to particular sites.



Option	Number of Correspondents
A	7
B	52
C	5
No Answer	16

Sustainability Appraisal for Key Issue 16

Both Options B and C are well supported with Option B coming out on top; Option A attracts very little support although one comment points out that agriculture can support biodiversity and manage flood risk.

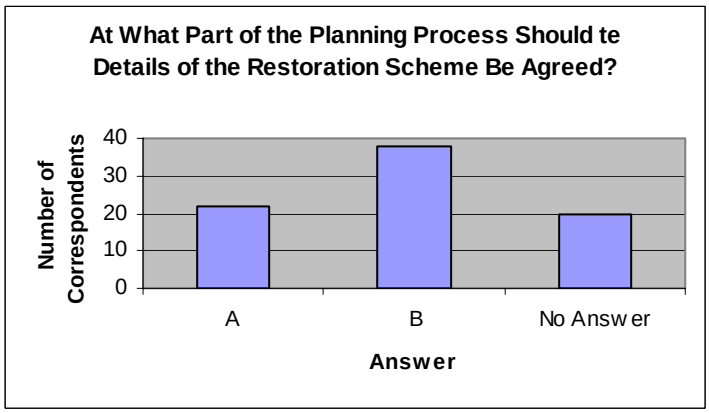


Option	Number of Correspondents
Yes	47
No	7
Unsure	0
No Answer	26

Key Issue 17: Planning for Restoration (Q38b)

From the responses given, there appeared to be support for Option A in that this approach provided greater flexibility over time and allowed for changes to be made over a long timescale to reflect changes in technology or planning policy. Option B was less flexible, but did provide greater certainty for the local community and the industry that a specific end use would result and that end result would be set out in detail prior to any planning approval. Respondents could see the benefits of both approaches and support was fairly equally spread. There was also a concern that if restoration was left to the later stages of a development there is less inclination on the part of the developer to provide a satisfactory scheme. In addition most quarry developments are implemented in phases and this might lead to a piecemeal approach to restoration rather than a fully comprehensive scheme.

Option B was considered in one or two cases to be better because there was no reason why a scheme could not be changed closer to implementation if there were over-riding reasons for this. Of course any changes would have to be approved by the County Council and would have to go through a further consultation process.

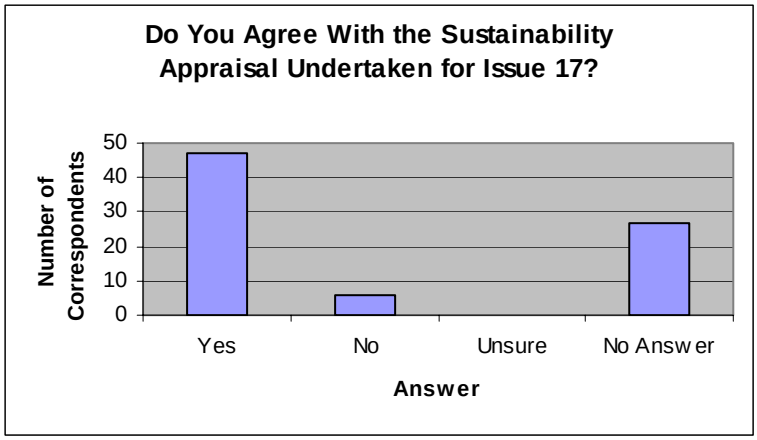


Option	Number of Correspondents
A	22
B	38
No Answer	20

Sustainability Appraisal for Key Issue 17

Option A scored well in the medium and short term while Option B was considered to be better in the long term. Again the conclusion of the SA appears to be slightly flawed as Option A scored better overall. It was pointed out also that Option A could allow response to further consultation and therefore also be more responsive to change in the long term.

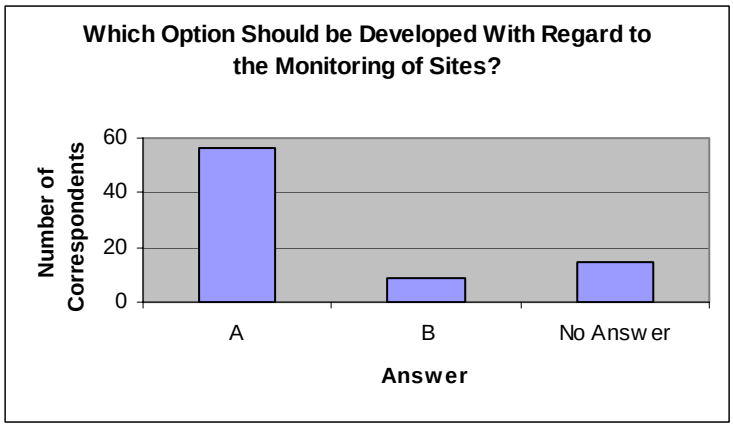
It was considered that there could be further merit in Option B because
although sites would be identified in Option A, when the sites were put forward in Option B the proposals would be at a much more detailed level whereby restoration schemes could be assessed much more rigorously. This would also help in the consultation process as more detailed schemes are easier for people to envisage than site allocations.



Option	Number of Correspondents
Yes	47
No	6
Unsure	0
No Answer	27

Key Issue 18: Site Monitoring (Q40b)

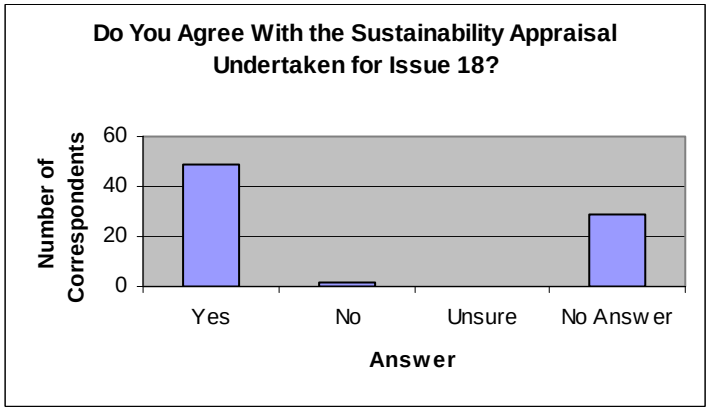
Option A was considered by some to be the best option in a lot of cases as it was considered to be more upfront and transparent. However, it was also strongly rejected by other respondents who quoted national good practice guidance set out in the 2006 regulations rather than local policies. However Option A only seeks to reflect the guidance in the good practice guide. Option A was considered to offer more protection for biodiversity, geo-diversity and long term environmental strategies whereas option B appeared to encourage short term commercial objectives. It was suggested that there be a specific indicator on the impact of minerals on landscape character which would show how far applications are following the guidance in landscape character assessments.



Option	Number of Correspondents
A	56
B	9
No Answer	15

Sustainability Appraisal for Key Issue 18

Option A appeared to satisfy the objectives of the SA slightly better than Option B. Most responses agreed that the most sustainable option had been selected although one response suggested that site by site consideration as in Option B would allow consideration of a number of impacts such as biodiversity, human health etc to be monitored in a more targeted manner.

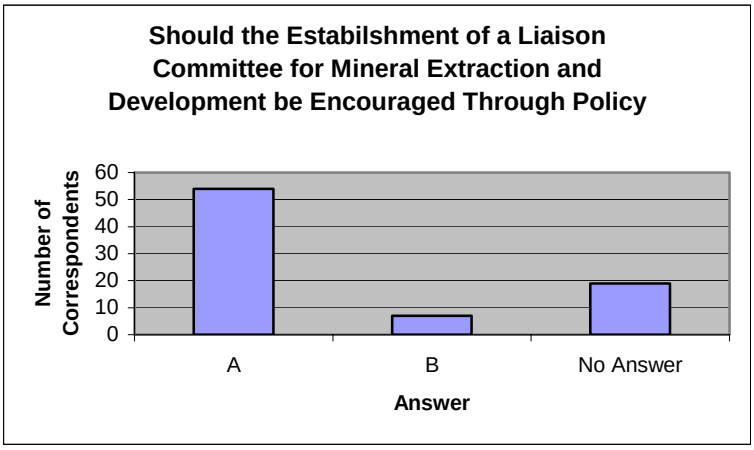


Option	Number of Correspondents
Yes	49
No	2
Unsure	0
No Answer	29

Key Issue 19: Liaison Committees (Q42b)

There was overwhelming support for Option A which it was felt, would make developers accountable and place a requirement on them to participate with the community to discuss operations and any potential concerns with them. The process empowers local communities and gives them a framework for consultation with quarry companies and lets operators know at planning approval stage what is expected of them. One or two respondents made the point that it should not be a requirement but something the community wants to get involved in. It is likely that developers would set up liaison meetings voluntarily as some do already and it is clear that operators have no problem with Option A.

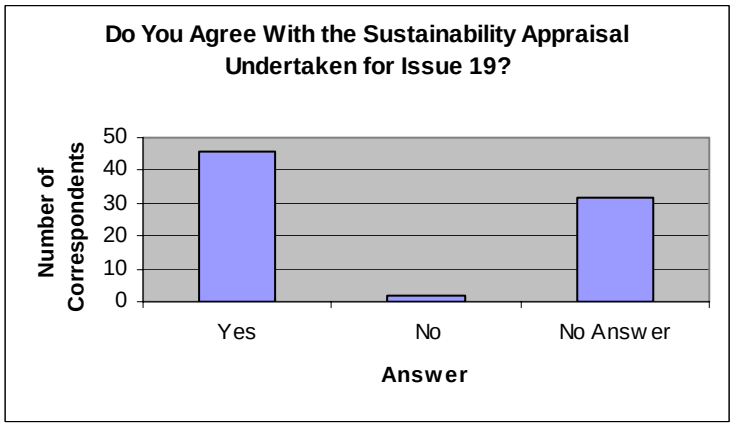
However, making the setting up of a liaison meeting a requirement would provide certainty at an early stage of what was expected. Finally rather than all applications requiring a liaison committee to be set up it probably should not apply to smaller applications.



Option	Number of Correspondents
A	54
B	7
No Answer	19

Sustainability Appraisal for Key Issue 19

Respondents felt that Option A would satisfy the SA objectives better than Option B. The importance of monitoring over the long term has been raised in some responses. Another response suggested that the SA need not be applied to this issue and that a liaison committee need not be required to be set up unless required.



Option	Number of Correspondents
Yes	46
No	2
No Answer	32

Further Comments about the Core Strategy (Q44)

Comments were made as to the subjectivity of the SA. In practice it is very difficult to produce an SA which is totally objective – there are many different assumptions that can be made, given the long timescale of a minerals operation when compared to the LDF timetable. A geological plan was

considered important. Restoration was also considered to be an important theme. One idea was to enable restoration schemes to be species specific; ie create a habitat for one species rather than several types of habitat. Another idea was for joint working between operators to produce a network of linked habitats as part of a joint restoration process. Following this comment WCC have decided to look at the viability of setting up a Restoration Working Group which could consist of operators and environmental organisations, when sites are eventually allocated.

Concerns were expressed again as to how reserves of non energy minerals will be safeguarded as not all minerals had the safeguarding option. It is considered appropriate to treat each mineral on its merits and a full justification for the choices made will be made. Climate change and in particular the Merton Rule was mentioned ie each site should generate 10% of its own energy on site. This would be difficult with mineral operations given the lack of infrastructure on sites.

Further Comments on the Consultation Process (Q45)

Generally the public consultation process was well received with the workshops being praised as well as the document which was said to be well related to the Sustainability Appraisal and easy to read considering it dealt with complex topics. The questionnaire was however perceived to be rather long and arduous to work through and there were issues regarding the online questionnaire which one person said was hard to find on the website while the statutory consultation period was considered inadequate in some quarters. Interestingly some responses stated that consultation process was excessive while others stated that it was inadequate.