Bournemouth, Dorset & Poole Minerals & Waste Development Framework

Sustainability Appraisal incorporating Strategic Environmental Assessment of the Pre-Submission Draft Minerals Core Strategy

Sustainability Appraisal Report July 2012 – Incorporating Sustainability Appraisal Post Adoption Statement (May 2014)

Sustainability Appraisal Post Adoption Statement

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Introduction

Bournemouth, Dorset and Poole resolved to adopt the Minerals Strategy in Council meetings on the Following dates: 13 February 2014 (Dorset County Council); 4 March 2014 (Bournemouth Borough Council); and 22 April 2014 (borough of Poole). The resolution specified that the date of adoption would be two weeks after the last of the three Council meetings. The adoption date is therefore 6 May 2014.

Why has this Statement been prepared?

Planning legislation requires that Local Plans are subject to a Sustainability Appraisal (SA), a systematic process that is designed to evaluate the predicted social, economic and environmental effects of development planning. European and UK legislation require that development plans are also subject to a Strategic Environmental Assessment (SEA), a process that considers the effects of development planning on the environment. Where significant adverse effects are predicted, the SEA aims to identify means to avoid or mitigate such effects. Government guidance advises that these two processes should be carried out together and requires Local Plans to be subject to a SA incorporating SEA.

This sustainability adoption statement for the Bournemouth, Dorset and Poole Minerals Strategy has been prepared in accordance with the Town and Country Planning (Local Planning) (England) Regulations 2012 (26a) (iii) and with the Environmental Assessment of Plans and Programmes Regulations 2004 16 (4). The adoption statement describes how the Sustainability Appraisal process has influenced the progression of the Minerals Strategy, in summary it provides information on:

a. How environmental considerations have been integrated into the plan or programme
b. How the environmental report has been taken into account
c. How the opinions expressed in responses to the consultation have been taken into account
d. The reasons for choosing the plan or programme as adopted, in the light of other reasonable alternatives dealt with; and
e. The measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme

The main purpose of this Statement is to present a summary of the findings of the SA at each stage, to demonstrate that sites and policies contained in the Minerals Strategy have been subject to a comprehensive assessment of the impact of the impact of their potential environmental, social and economic effects and ensures the sustainability of the plan right through to adoption. The statement demonstrates that the plan adopted is the most sustainable with regard to the alternative options that were considered.

Conservation Regulations Assessment

The Minerals Strategy was also subject to a thorough and iterative Conservation Regulations Assessment (CRA), which was carried out in parallel to the SA/SEA process. The CRA assessed the likely significant effects of the Minerals Strategy on Natura 2000 designated nature conservation sites. As necessary this assessment has fed into the SA in relation to biodiversity issues.

How environmental considerations have been integrated into the Minerals Strategy

The integrated SA/SEA process has been designed to ensure sustainability considerations are incorporated into the planning and the decision making process. Sustainability Appraisal of the Minerals Strategy has been a systematic and iterative process carried out at each stage in the preparation of the document, thereby influencing and informing each stage of plan development as well as providing reasoning to support key decisions.

Preparation of the Minerals Scoping Report was the first stage of the Sustainability Appraisal. Work began on the Sustainability Appraisal Scoping Report in 2007 and was updated in 2009/10. It set out the scope of the Sustainability Appraisal work to be carried out in relation to the Minerals Strategy and the information to be gathered or relied upon.

The scoping report was organised by various topics identified in the SEA Directive, plus social and economic topics to fulfil the requirements of Government guidance on sustainability appraisal. Relevant plans and programmes were reviewed to develop a wider understanding of the issues and priorities for Bournemouth, Dorset and Poole, and information about the current and future social, environmental and economic characteristics of the area were compiled. The Sustainability Appraisal framework comprised a list of 16 Sustainability Appraisal objectives to address the sustainability issues, as well as reflecting international, national, regional and local objectives. Indicators were also developed to measure how well the emerging policies and strategies would perform and help to achieve sustainability objectives. The SA objectives were used to test the Minerals Strategy at the following key stages:

- The Minerals Core Strategy Issues and Options Report 2007/8
- The Draft Minerals Core Strategy 2010
- The Revised Draft Minerals Core Strategy 2011
- The Pre-Submission Draft Minerals Core Strategy 2012
- Policies, objectives and spatial strategies subject to modifications July 2013

Sustainability Reports were published in tandem with public consultation stages and, for ease of reference, SA summaries were included within the main Minerals Strategy consultation documents. At each stage the appraisal involved assessing the performance of each option/policy against each of the sustainability objectives, using a series of matrices. The findings of the reports, together with comments received at each consultation stage, helped shape the next stage of the development of the plan.

All assessments were based on professional judgement, officer discussions, technical knowledge and the evidence base.

All Sustainability Appraisal Work was undertaken in-house by officers of the Minerals and Waste Planning Policy Team with inputs from expert officers in specific cases (such as transport and ecology). Independent consultants URS were commissioned to undertake the role of 'Critical Friend' during key stages in the process including undertaking a review of the final Sustainability Appraisal Report.

Any new guidance published since the preparation of the scoping report in 2009/2010 was reviewed during the preparation of the final SA report (July 2012) in order to ensure that the evidence base and sustainability objectives properly reflect current policy and issues relevant to minerals planning in Dorset. It was concluded that none of the new guidance reviewed raised new issues that were considered significant enough to warrant a review of the sustainability objectives.

The Inspector in her Report (18th December 2013) commented on the Plan's legal compliance, and with specific regards to the Sustainability Appraisal she concluded that;

> *"The Councils undertook a SA (incorporating strategic environmental assessment) on the submitted Plan and post-submission modifications. The SA is adequate and has been carried out in an iterative manner and recommendations have been incorporated into the Plan as it has progressed."*

The Pre-Submission Sustainability Appraisal Report (July 2012)

The Sustainability Appraisal Report on the Pre-Submission Draft Minerals Core Strategy was a key part of the appraisal process. It ensured the public was fully informed on the effects of the Plan and the alternatives considered. Comments were invited during a formal period of consultation during July and September 2012, on both on the Plan (Pre Submission Draft Minerals Core Strategy), the alternatives and their appraisal.

The Sustainability Appraisal report documented the full appraisal of the Minerals Strategy and summarised the potential economic, social and environmental implications. It demonstrated that sustainability considerations had been fully incorporated into the development of the Minerals Strategy throughout, and provided information for stakeholders as well as an audit trail of the appraisal process.

The results of the appraisal were also set out in the SA Report including identified positive and negative impacts of the Plan's objectives, spatial strategy and detailed policies and an indication of where uncertainties exist.

In many cases the effects were deemed to be uncertain and are dependent upon mineral sites coming forward and the effectiveness of the policies in managing any negative effects of these proposals. The strategic nature of many of the proposed policies meant that ultimately, the real effects of the Minerals Strategy would depend on the interpretation and implementation of the polices through the Mineral Sites Plan (which will follow the Minerals Strategy) and

future planning applications. Where this was the case the Sustainability Appraisal focused on the policy safeguards that can be offered by the strategy to ensure that the appropriate steer is given when specific allocations or proposals are considered.

The Sustainability Appraisal identified the potential effects of developments but the eventual impacts will depend on the scale of development, nature and type of operations and the precise location of development in relation to sensitive receptors. This uncertainty will be addressed through appraisal of the sites coming forward for inclusion in the Mineral Sites Plan and the use of the site selection criteria set out in the Minerals Strategy (Appendix 1). The Mineral Sites Plan will also, as appropriate, contain development criteria for each site therefore indicating where potential impacts would need to be carefully considered and possible mitigation. In addition, at the planning application stage an Environmental Impact Assessment will further address any remaining uncertainties related to detailed site specific matters.

The following key points were drawn from the Sustainability Appraisal of the Pre-Submission Draft objectives, spatial strategy and policies:

- The objectives that promote minerals extraction (objective 1 and 2) and the spatial strategy for the delivery of minerals have the potential to give rise to negative impacts on the environment, particularly in the short term. Implementation of the detailed development management policies should ensure mitigation of significant effects of future extraction to an acceptable level. There would however be positive impacts for the economy and to a limited extent employment opportunities.

- Key strategic policies promoting the extraction of minerals (AS1, BC1, PD1, PK1, HY1, HY2) have greatest potential to give rise to significant negative impacts on the environment however most contain criteria which together with the development management policies will ensure mitigation of significant effects. The policies will result in positive impacts for the economy and will help to ensure a steady supply of minerals, which has important benefits in terms of meeting the needs of society.

- A number of other policies also highlighted potential negative impacts including RE1, AS4, AS5, BC3, PK4, PD2, BS1, HY5, IS1. It was felt that the plan has taken all reasonable steps to mitigate potential impacts through safeguards built into policy wording and the detailed development management policies.

- Careful monitoring of the implementation of all polices, particularly the key strategic policies, will be essential to ensure significant effects are avoided.

- Cumulative and in-combination impacts were identified which could arise through the implementation of a number of the strategies and policies.

- Generally the development management policies within the Plan will be used to prevent, reduce and where necessary offset any significant adverse effects on the environment and communities through the implementation of the plan.

Interim Sustainability Appraisal Report of the Modifications to the Submission Minerals Core Strategy (July 2013)

Following the submission of the Minerals Strategy to the Secretary of State, a Public Examination, which involved hearing sessions, took place between the 14 - 16 May 2013 and 21 to 22 May 2013. The hearing sessions were to determine the 'soundness' of the plan.

Following the hearing sessions, a number of modifications to the plan were proposed by the Minerals Planning Authority. Modifications to policies, objectives and spatial strategy were fully re-assessed at this time. At the request of the Inspector the schedule of modifications and the accompanying Interim Sustainability Appraisal Report was made available for consultation between 29 July and 16 September 2013. This gave interested parties the opportunity to comment on proposed modifications to the plan before the Inspector completed her report. For completeness the schedule contained both Main Modifications [1] and Additional Modifications [2]. However, the Inspector would only be concerned with the Main Modifications; comments on Additional Modifications were considered by the Mineral Planning Authority.

The Sustainability Appraisal concluded that the majority of modifications made little or no impact on the Sustainability Appraisal of the policy and no mitigation was proposed to any policy following the appraisal. A summary of the appraisal can be found in the Interim SA Report of the Modifications to The Submission Minerals Core Strategy.

In addition, a separate report, Addendum to Conservation Regulations Assessment (January 2013), concluded that providing the Main Modifications were incorporated there would be no likely significant effects on European sites that would result from the Bournemouth, Dorset and Poole Minerals Strategy. As there are no likely significant effects, the competent authority need not proceed to undertake appropriate assessment, and the Plan is considered to be compliant with the Conservation of Habitats and Species Regulations, 2010.

Consultation - How the opinions expressed in responses to the consultation have been taken into account

Consultation is an important part of SEA/SA and has been undertaken at various stages during the development of the Minerals Strategy. Sustainability Appraisals were carried out in parallel with the plan and comments invited on the findings at each stage. The key consultation stages of the Minerals Strategy are set out above.

Consultation of the Minerals Strategy and the Sustainability Appraisal reports was carried out in accordance with the Councils Statement of Community Involvement adopted March 2007 (and updated Statement of Community Involvement April 2013). The Statement of Consultation, required at Submission Stage, sets out how Dorset County Council has involved the public and other stakeholders in the preparation of the Bournemouth, Dorset and Poole Minerals Strategy and the various stages of the Sustainability Appraisal. It was prepared in

1 Main Modifications are changes that are necessary to make the document sound and suitable for adoption
2 Additional modifications' improve the document but do not materially affect the policies set out in the Strategy are also included in the schedule

accordance with Regulation 22 (c) of the Town & Country Planning (Local Planning) (England) Regulations 2012. The statement also provides a summary of main issues raised during each consultation and how they were addressed.

It is considered that every reasonable effort has been made to involve communities and specialist stakeholders in the development of the Minerals Strategy. The starting point has been the consultation commitments in the Dorset Statement of Community Involvement, but in a number of cases its requirements have been exceeded in an attempt to maximise awareness of and involvement in the Minerals Strategy. The issues raised at each stage of consultation have been carefully considered and addressed as appropriate in the refinement of the document.

A number of concerns and supporting comments on the Sustainability Appraisal were received at the various stages in the preparation of the Minerals Strategy. For stages up to the Revised Draft MCS these are summarised in the SA Report. Representations on the Sustainability Appraisal were fully considered, alongside the comments on the Plan itself. Where appropriate, mitigation was recommended and changes were incorporated into the following stage of the Plan to address concerns raised. An officer response to each of the comments including details of any action taken is also set out in the Sustainability Appraisal Report.

Responses to the Bournemouth, Dorset and Poole Minerals Core Strategy Pre-Submission Draft Consultation were also published and as appropriate considered through the Public Examination. Three representations were received that related specifically to the sustainability appraisal:

The first representation related to the Sustainability Appraisal of Policy AS1 - Provision of Sand and Gravel, as follows:

> *"Any consideration of economic benefits for Dorset from sand or gravel extraction must take into account the contribution made to local employment. The profit from sand and gravel extraction would inevitably go to international corporations who were exploiting mineral concessions which they have purchased and will not result in benefit to the County or its economy. It needs to be borne in mind that even substantial workings may only employ single figures of workers who will not necessarily themselves be local to the area."*

No changes were made to the policy in response to this representation. Officers agreed that economic benefits would include the contribution made to local employment, although employment numbers may be low in comparison to other employment land uses. When future quarries are considered they will be considered against the relevant polices in the Minerals Strategy and Site Selection Criterion C17. This criterion was subject to some debate at the Public Examination and as such was subject to a Main Modification. Consideration of the modified Criterion 17 will ensure a thorough assessment of the relevant economic considerations is made including the level of employment that would be created or maintained both directly and indirectly, how important the site may be to the delivery of a steady and adequate supply of minerals, the wider contribution the site may make to the local economy, the rarity of the mineral and its potential markets and any economic impacts (both negative and positive) that the proposal may have such as on tourism.

The second representation related to the Sustainability Appraisal of Policy PD1 - Underground Mining and High Wall Extraction of Portland Stone, as follows:

> *"DCC accept in section 10.18 that set up costs may be high and block sizes may be limited so by adopting this policy they may have significant impact on the ability of the Industry to supply the market with the required product i.e. large block. DCC needs to understand the financial implications of this on the industry. If the Industry fails to be able to supply the required product the market will seek alternatives products such as French Limestone to supply their demand."*

The Mineral Planning Authority acknowledge the potential economic implications of underground mining and high wall mining of Portland Stone. However, it is not considered there is any real alternative to the strategy proposed given the key issue of reducing impacts and given the extent of quarrying that has previously taken place on Portland. Additionally, since one operator is able to rely on dimension stone obtained through underground mining it is considered that this is not an unrealistic way forward for the industry. No modifications were proposed in response to this representation.

The final representation related to the Sustainability Appraisal of Policy PD3 - Relinquishment of Permission, as follows:

> *"Para 10.44 - Description of areas sensitive to surface quarrying identified on figures 20 & 21 We thoroughly support the relinquishment of permission for surface quarrying of the coastal strip (Area 7 in the list of preferred areas for relinquishment). and for its inclusion on Figure 21 as a preferred area for relinquishment of permission for surface extraction'. We consider it most important that the whole of the coastal strip from Southwell to Portland Bill should be removed from the threat of quarrying. This is one of the relatively few unspoilt areas of land remaining on the island and is particularly important for its landscape qualities with magnificent views to seaward across this strip of land, for its historic landscape of ancient field systems, and as the setting for the World Heritage coastline. We object to the removal of the word 'highly' sensitive from the description of the coastal strip in point 7, compared with the July 2011 Draft Strategy. We do not consider that this adequately describes the level of sensitivity of this area. We are dismayed at the unjustified removal of para 11.17 of the July 2011 Draft Strategy, which makes specific reference to the Coastal Strip, stressing it as a key issue and describing it as 'highly sensitive'. We see no lessening of the importance of this land to the community in terms of ecology, landscape, historic significance, geology or amenity: its value remains unchanged. We are of the view that the substance of this para should be restored to the text, in view of the special importance of this area of land. SOUND (with reservations)."*

In response to this representation the MPA considered that the sensitivity of the Coastal Strip is adequately explained within the Plan and modifications proposed.

Responses from thirteen organisations were received to the consultation on the proposed modifications. None of these representations were specifically made to the Sustainability Appraisal of the modifications.

Consideration of Alternatives - The reasons for choosing the plan or programme as adopted

The preparation of the Minerals Strategy and Sustainability Appraisal involved a number of stages whereby a number of alternative approaches to achieving the vision and objectives of the strategy have been considered and appraised. These alternatives include high level spatial options together with options covering more specific issues such as the level of minerals provision.

The Issues and Options stage provided consultees with a description of the issues that the plan needed to deal with, supported by explanatory text, and the options for dealing with the issues. The options were developed from a review of the adopted Minerals and Waste Local Plan, other baseline data and discussions with stakeholders both internal and external. A full Sustainability Appraisal was undertaken to compare options against the sustainability objectives, where appropriate the options were appraised against each other using the Sustainability Appraisal objectives as a means of highlighting the differences between them, and making an assessment of the most sustainable option.

Although the majority of options were considered at the Issues and Options stage further alternatives also emerged or developed and were appraised at the Draft Minerals Core Strategy (March 2010) and the Revised Draft Minerals Core Strategy (July 2011) stages. At each stage the findings of the Sustainability Appraisal informed the development of the proposed policies.

No further options were considered at the Pre-Submission Draft stage or during the Public Examination.

The Sustainability Appraisal Report summarises the key options/alternatives that were considered during the preparation of the Minerals Strategy. It highlights which options were taken forward and why drawing on the results of the Sustainability Appraisal, stakeholder consultation and influences given the baseline situation and the basis for the options put forward.

Monitoring - the significant environmental effects of the implementation of the Minerals Strategy

The SEA Directive requires monitoring of the significant environmental effects of the plan, in order to identify unforeseen adverse effects and to enable remedial actions to be taken.

Monitoring already plays an important role in the performance management of the minerals planning process in Dorset. The Annual Monitoring Report (AMR) forms part of the framework of development plan documents and provides the means to assess, the implementation of the local development scheme and, through a series of indicators, the extent to which policies in adopted plans are being successfully implemented.

The Minerals Strategy contains a monitoring framework. The framework contains a set of indicators and targets that have been developed to allow direct and indirect effects of the plans to be monitored. The framework incorporates indicators for all policies, but highlights those that have been identified as having potential significant effects or uncertainties/risks.

The key significant effects that have been identified from the implementation of the Minerals Strategy are likely to be linked to the impacts on amenity, landscape, biodiversity and minerals related transportation. Examining the consistency with related development management policies should provide the necessary monitoring and should allow for essential mitigation to be build into future proposals.

A number of modifications were proposed to the monitoring framework, many of which were additional modifications for the purpose of clarification. The main modifications can be summaries are:

- The inclusion of a new section titled 'Enforcement of Planning Control'. This will explain the Mineral Planning Authorities responsibility for monitoring the progress of Minerals sites and the enforcement of planning permissions imposed on those sites.
- The inclusion of a new row in the Framework to cover new Policy SS1 titled 'Presumption in favour of sustainable development'
- The inclusion of reference to Local Nature Partnership and Marine Management Organisation within the section titled ‘Implementation Partners' related to various policies
- Updating target figures to reflect the updated overarching strategies
- Inclusion of trigger point and implementation issues for Policy IS1 - Industrial Sand

The Inspector, in her Report (18th December 2013) commented on the implementation and monitoring arrangements "*With the modifications recommended, the Plan contains sufficient realistic, achievable targets, indicators and milestones to monitor the performance and delivery of the vision, strategic objectives and policies. It provides for proper, regular assessment of how effective the policies are proving to be in meeting their objectives, thereby facilitating the identification of any changes needed. Consequently, I conclude that the implementation and monitoring strategy is fit for purpose and sound.*"

Conclusion

This Post Adoption Statement has outlined how the Sustainability Appraisal, as a tool, has been integral to shaping the policies and spatial strategies of the Minerals Strategy. This has significantly contributed towards the 'soundness of the Plan.

Further information on the Minerals Strategy and its preparation is available at www.dorsetforyou.com/mcs

Non Technical Summary

Non Technical Summary

Introduction

The Planning and Compulsory Purchase Act 2004 requires Mineral Planning Authorities to prepare a Minerals and Waste Development Framework (MWDF). The MWDF will be made up of a portfolio of Development Plan Documents (DPDs), which will include policies to deal with minerals and waste.

The first document to be produced is the Bournemouth, Dorset and Poole Minerals Strategy Development Plan Document. The Minerals Strategy sets out the vision, objectives and spatial strategy for minerals development in Bournemouth, Dorset and Poole. It is a strategic document and is not site specific. It will indicate the range, type, quality and broad locations of minerals extraction over the plan period up to 2028. It will also contain development management polices against which applications for mineral workings will be considered.

What is a Sustainability Appraisal/Strategic Environmental Assessment

This report provides an overview of the assessment work carried out and explains how the Sustainability Appraisal (SA) ties into the Minerals Core Strategy as a whole. The purpose of SA is to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of planning policy documents.

It is a legal requirement to carry out a SA of plans and programmes. In addition, Under European Directive, local authorities are also required to undertake a Strategic Environmental Assessment (SEA) and an 'Environmental Report'. This report covers both of these requirements as an Integrated Strategic Environmental Assessment/Sustainability Appraisal, known herein as 'SA'.

SA is carried out at the various key stages in the development of DPD's. The preparation of the Minerals Core Strategy has involved five key stages:

- An SA Scoping Report in 2007 (updated in 2009/10 and refereed to in Chapter 3 of this report) which set out the scope of the SA work to be carried out in relation to the Minerals Core Strategy.
- The Minerals Core Strategy Issues and Options Report 2007/8
- The Draft Minerals Core Strategy 2010
- The Revised Draft Minerals Core Strategy 2011
- The Pre-Submission Draft Minerals Core Strategy 2012 and SA Report.

The Scope of the Sustainability Appraisal

In order to carry out the SA an understanding of the current environmental, economic and social characteristics was required. Detailed information was collected and a full analysis of other plans, programmes, polices and baseline data was carried out and contained within

the Scoping Report. A summary of the SA scoping stage including consideration of the Countys characteristics and the legislative and policy context is included in 3 'Sustainability Objectives, Baseline and Context' of this report.

From the research and analysis a series of issues and potential challenges facing the plan area associated with mineral extraction and working were identified. It would be these issues that would be taken into account and responded to in developing the Minerals Core Strategy and SA. The issues are listed in 3 'Sustainability Objectives, Baseline and Context' of this report presented as a series of twelve topic areas as follows:

- Climate Change and Energy
- Biodiversity and Geodiversity
- Water
- Historic Environment
- Landscape
- Air Quality and Noise
- Minerals
- Transport
- Economic Development and Employment
- Soil and Land
- Waste
- Population and Human Health

Based on the identified issues 16 sustainability objectives (see below) were developed to assess the issues and impacts, measure how well the emerging Minerals Core Strategy is addressing these and what the overall residual impacts are likely to be. This was used to identify recommendations as to how adverse impacts could be overcome or mitigated. Additional criteria, or indicators, were identified for each objective to assist in the application of the objectives.

Any new guidance published since the preparation of the scoping report in 2009/2010 was reviewed during the preparation of this SA report in order to ensure that the evidence base and sustainability objectives properly reflect current policy and issues relevant to minerals planning in Dorset. It was concluded that none of the new guidance reviewed raised new issues that were considered significant enough to warrant a review of the sustainability objectives.

Sustainability Objective 1 To maintain, conserve and enhance biodiversity

Sustainability Objective 2 To maintain, conserve and enhance geodiversity

Sustainability Objective 3 To maintain, conserve and enhance the landscape including the coast

Sustainability Objective 4 To maintain, conserve and enhance the historic environment

Sustainability Objective 5 To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way

Sustainability Objective 6 To reduce flood risk and improve flood management

Sustainability Objective 7 To maintain, conserve and enhance soil quality

Sustainability Objective 8 To protect and improve air quality

Sustainability Objective 9 To conserve and safeguard mineral resources

Sustainability Objective 10 To promote the use of alternative materials

Sustainability Objective 11 To promote and encourage sustainable economic growth, and reduce relative poverty and deprivation

Sustainability Objective 12 To provide an adequate supply of minerals to meet society's needs

Sustainability Objective 13 To sustain and where possible improve the health and quality of life of the population

Sustainability Objective 14 To adapt to and mitigate the impacts of climate change

Sustainability Objective 15 To enable safe access to countryside and open spaces

Sustainability Objective 16 To reduce the adverse effects of the transport of minerals

Heath Impact Assessment

The SA has included a Health Impact Assessment (HIA) in order to specifically predict the health consequences of the implementation of the Minerals Core Strategy. Minerals extraction and transportation have potential implications for the health and wellbeing of people and HIA is necessary to anticipate and mitigate health consequences.

The assessment of the Pre-Submission Draft Minerals Core Strategy highlighted that policies with the aim of maintaining supply of minerals inevitably give rise to negative impacts on health and wellbeing of local communities/amenity through the generation of noise, dust, traffic and possible increased stress. Conversely, policies that promote future minerals

extraction ensure continued local employment and contribute to economic growth which are important in a sustained quality of life. Assessments have also acknowledged the possibility of cumulative impacts where number of mineral types are concentrated in the same geographical area.

Other assessment work

An Equalities Impact Assessment has been undertaken for the production of the Minerals Core Strategy raising a number of issues such as the need to produce clear documents, using plain English where possible, compliance with corporate standards and the use of venues for exhibitions/examinations that do not exclude certain groups.

A Conservation Regulations Assessment has also been carried out to access the likely significant effects of the Minerals Core Strategy on Natura 2000 designated nature conservation sites. As necessary this assessment has fed into the SA in relation to biodiversity issues.

How has the SA been carried out?

This SA has involved the prediction, evaluation of the likely significant effects of the implementation of the Minerals Core Strategy and has identified possible ways of overcoming or mitigating adverse impacts. The assessment has been based on professional judgement taking into account the baseline information, issues facing the County and other available background evidence and technical expertise relevant to the issues raised.

The SA of the Minerals Core Strategy considered each option/policy against the sustainability objectives using a series of matrices.

The options/policies were systematically assessed against each of the sustainability objectives considering:

a. The potential impacts/outcomes of the implementation of the proposed policy, as measured against each sustainability objective. This included a reasoned justification of the expected impacts of the policy, in terms of each of the sustainability objectives. In some cases, these include an estimation of the short, medium and long-term impacts.
b. An overall assessment, based on the reasoned justification, of the expected impact of the policy. This stated whether the proposed policy would have a negative impact, positive impact, neutral (the policy will have no specific effect) or would not be applicable (where the objective was not relevant and no assessment was made) as measured by the sustainability objective. Again, this is in some cases presented in terms of short / medium / long-term timescales, as the impacts can vary with time.
c. The potential for cumulative and in-combination effects having regard to other plans affecting Dorset.

A summary or conclusion of the assessment was presented at the end, drawing on the most significant outcomes of each appraisal and highlighting the contribution to overall sustainability that each policy may make.

The SA has therefore apprised the following:

- The Minerals Core Strategy Objectives and Spatial Strategy against the SA objectives;
- The emerging options against the SA objectives, at each stage as relevant. A summary of the options considered is contained within Chapter 4 of this report.
- The emerging policies against the SA objectives, at each stage as relevant;
- The Pre-Submission Draft Minerals Core Strategy Policies against the SA objectives.

The full sustainability appraisal undertaken at each main stage of the documents preparation can be found at appendices b, c, d and e to this report.

What are the findings of the SA?

Chapter 5 summarises the findings of the sustainability appraisal of the Pre-Submission Draft Minerals Core Strategy. It sets out the results of the appraisal and identifies positive and negative impacts of the Plan's objectives, spatial strategy and detailed policies on the SA objectives and indicates where uncertainties exist. This section highlights where polices have the potential to have significant effects (either alone or in combination) and which of the environmental factors that may be affected.

In many cases the effects are uncertain and are dependent upon sites coming forward and the effectiveness of the policies in managing negative effects of these proposals. The strategic nature of many of the proposed policies means that ultimately, the real effects of the Minerals Core Strategy will depend on the interpretation and implementation of the polices through the Minerals Site Allocations Document and planning applications. Where this is the case, however, the SA focused on the policy safeguards, that can be offered by the MCS to ensure that the appropriate steer is given when specific allocations or proposals are considered.

The SA has identified the potential effects of developments but the eventual impacts will depend on the scale of development, nature and type of operations and the precise location of development in relation to sensitive receptors. This uncertainly will be addressed through an SA of the sites coming forward for inclusion in the Mineral Site Allocation Document and the use of the site selection criteria set out in the Minerals Core Strategy. The MSAD will also, as appropriate, contain development criteria for each site therefore indicating where potential impacts would need to be carefully considered and possible mitigation. In addition, at the planning application stage an Environmental Impact Assessment will further address any remaining uncertainties related to detailed site specific matters.

The following key points can be drawn from the sustainability appraisal of the Pre-Submission Draft objectives, spatial strategy and policies:

- The MCS objectives that promote minerals extraction (objective 1 and 2) and the spatial strategy for the delivery of minerals have the potential to give rise to negative impacts on the environment, particularly in the short term. Implementation of the detailed development management policies should ensure mitigation of significant effects of future extraction to an acceptable level. There would however be positive impacts for the economy and to a limited extent employment opportunities.

- Key strategic policies promoting the extraction of minerals (AS1, BC1, PD1, PK1, HY1, HY2) have greatest potential to give rise to significant negative impacts on the environment however most contain criteria which together with the development management policies will ensure mitigation of significant effects. The policies will result in positive impacts for the economy and will ensure a supply of minerals for society, which has important benefits in terms of meeting the needs of society.

- A number of other policies also highlighted potential negative impacts including RE1, AS4, AS5, BC3, PK4, PD2, BS1, HY5, IS1. It was felt that the plan has taken all reasonable steps to mitigate potential impacts through safeguards built into policy wording and the detailed development management policies.

- Careful monitoring of the implementation of all polices, particularly the key strategic policies, will be essential to ensure significant effects are avoided.

- Cumulative and in-combination impacts were identified which could arise through the implementation of a number of the strategies and policies. This is dealt with in detail in Chapter 6

- Generally the development management policies within the Plan will be used to prevent, reduce and where necessary offset any significant adverse effects on the environment and communities through the implementation of the plan.

What differences has the Sustainability Process Made?

The SA process has been carried out alongside the development of the Minerals Core Strategy polices and has therefore been able to inform the formulation of the policies throughout. Consultation on the plan at each key stage and the SA has meant that environmental, social and economic considerations have been integrated into the process.

A series of recommendations for mitigation were made during the process to improve the spatial strategies and policies of the MCS, and its implementation. Chapter 8 of this report provides a summary of the potential sustainability issues arising from the SA/SEA at each stage that led to mitigation in the form of changes to policy wording.

Where these effects are identified an explanation of where mitigation measures are included within policies in the MCS is set out in order to prove that the plan has taken all reasonable steps to mitigate effects.

Mitigation measures, drawn from the Environmental Impact Assessment, can also be included as a requirement of planning permissions granted for minerals development to reduce potential impacts on Dorset's environment and communities.

Monitoring

The SEA Directive requires monitoring of the significant environmental effects of the plan, in order to identify unforeseen adverse effects and to enable remedial actions to be taken. 9 'Monitoring' of this report sets out the proposals for monitoring the implementation of the Minerals Core Strategy.

The key significant effects that have been identified, throughout this report, are likely to be linked to impacts on amenity, landscape, biodiversity and minerals related transportation. Careful monitoring will be essential to ensure that all policies, especially those with the potential for specific effects, are implemented correctly and significant impacts are avoided. This will help to ensure consistent implementation of policies and any necessary mitigation.

The Minerals Core Strategy Pre-Submission Draft contains a monitoring framework. The framework contains a set of indicators and targets that have been developed to allow direct and indirect effects of the plan to be monitored. In particular, the framework incorporates indicators for the policies that have potential significant effects or uncertainties/risks as identified in Chapter 5 of this report.

What happens next?

A period of formal consultation on the Pre-Submission Draft Minerals Core Strategy will take place between 6 July and the 28th September 2012. Alongside the Minerals Core Strategy, the SA report is also being made available for consultation to facilitate informed consultation responses. Comments can be made on the SA Report see www.dorsetforyou.com/mcs

Should the MCS undergo any further significant changes in the future, including as a result of consultation responses, the changes will be subject to further SA and this report updated before the Minerals Core Strategy is submitted to the Secretary of State for examination.

1 Introduction

1 Introduction

The Dorset Minerals Core Strategy

1.1 The Planning and Compulsory Purchase Act 2004 requires Minerals Planning Authorities to prepare a Minerals and Waste Development Framework (MWDF). The MWDF will be made up of a portfolio of Development Plan Documents (DPD), which include policies to deal with minerals and waste.

1.2 The first document to be produced is the Bournemouth, Dorset and Poole Minerals Core Strategy Development Plan Document. The Minerals Core Strategy (MCS) sets out the vision, objectives and spatial strategy for minerals development in Bournemouth, Dorset and Poole. It is a strategic document and is not site-specific. It will indicate the range, type, quantity and broad location of minerals extraction over the plan period up to 2028. It will also contain development management policies against which applications for mineral workings can be considered.

Strategic Environmental Assessment/Sustainability Appraisal

1.3 Integrated Strategic Environmental Assessment/Sustainability Appraisal (SEA/SA) (known herein as 'SA') of the Minerals Core Strategy has been undertaken by officers of the Minerals and Waste Planning Policy Team. Independent consultants URS were commissioned to undertake the role of 'Critical Friend' throughout the process including undertaking a review of this SA report.

1.4 SEA involves the systematic identification and evaluation of the environmental impacts of strategic action (e.g. the Plan). In 2001, the EU legislation for SEA with the adoption of *Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'* (the SEA Directive). The Directive entered into force in the UK on 21 July 2004 and applies to a range of English plans and programmes, including Minerals DPDs.

1.5 SA broadens the concept of SEA to also address economic and social impacts. Under the Planning and Compulsory Purchase Act 2004 Minerals and Waste Planning Authorities must undertaken SA for each of their Minerals and Waste DPDs.

1.6 The Minerals Core Strategy has been through four significant stages and at each stage SA has been undertaken. In some cases this led to amendments and refinement of the options and policies. Further details on these stages can be found in Chapter 2. This document forms the SA Report for the Pre-Submission Draft of the Minerals Core Strategy. It builds on the previous appraisals and reflects changes arising from public consultation and the development of new policies.

The SA Process

1.7 The Department of Communities and Local Government (DCLG) has provided guidance for undertaking sustainability appraisal of DPDs within the 'Plan Making Manual' [3] which incorporates the requirements of the SEA Directive. This guidance can be found on the Planning Advisory Service website and makes it clear that the sustainability process should be fully integrated with the plan making process.

1.8 The sustainability appraisal process has informed the preparation of the Mineral Core Strategy from the outset. Evidence gathering was the first stage in preparing the MCS and the following were considered when developing the evidence base and establishing the sustainability appraisal objectives:

a. Identifying relevant policies, plans and programmes (see chapter 3 of this report);
b. Collecting baseline data (see 3 'Sustainability Objectives, Baseline and Context' of this report);
c. Identifying the sustainability issues and appraisal objectives (see chapter 3 of this report) and
d. Considering the options and alternatives (see 4 'Consideration of Alternative Options' of this report).

1.9 Once the scope of the SA was established and consulted upon the following activities were undertaken:

a. Testing the MCS objectives against the SA objectives (see 3 'Sustainability Objectives, Baseline and Context' of this report)
b. Development and refinement of the options. This involved the main body of appraisal work and various stages of consultation (see chapter 4 of this report)
c. Prediction and appraisal of the significant effects (see 5 'Appraisal Findings and Identified Significant Effects')
d. Consideration of mitigation of significant effects and maximisation of beneficial impacts (see chapter 8)
e. Proposal of measures to monitor the significant effects of the implementation of the MCS (see chapter 9 of this report)

This Sustainability Report

1.10 This SA Report on the Pre-Submission Draft MCS is a key part of the appraisal process. It provides the public with the information on the effects of the Plan (and the alternatives considered). The public is therefore fully informed when consulted and is able to comment both on the Plan, the alternatives and their appraisal.

3 http://www.pas.gov.uk/pas/core/page.do?pageId=109798

1.11 This report documents the full appraisal of the Minerals Core Strategy and summarises the potential economic, social and environmental implications. It demonstrates that sustainability considerations have been fully incorporated into the development of the Minerals Core Strategy throughout, and provides information for stakeholders as well as an audit trail of the appraisal process.

1.12 The SA Report will support the Pre-submission draft of the MCS, which will be subject to consultation from July to September 2012. The publication stage is a formal opportunity for stakeholders to make representations on any aspect of the soundness of the Minerals Core Strategy or the SA Report that accompanies it. Any representations received to the Pre-Submission Draft or SA will be considered and if necessary changes will be proposed. The MCS and accompanying SA Report will then be formally submitted to the Government. An independent Inspector will be appointed by the Government to consider the soundness of the MCS and an examination will be held. The Pre-Submission Draft contains an indicative timetable up to adoption of the MCS.

Health Impact Assessment

1.13 The SA has been conducted in an integral manner through the inclusion of Health Impact Assessment (HIA). Health related objectives have been incorporated into the sustainability appraisal at all stages. Further information on HIA and the consideration of the impacts of the Minerals Core Strategy on the overall health of the population can be found in 7 'Health Impact Assessment' of this report.

Equalities Impacts Assessment

1.14 An Equalities Impact Assessment has been undertaken for the work of the Minerals and Waste Planning Policy Team which specifically includes the production of the Minerals Core Strategy. The assessment reviewed the main issues, positive and/or negative relating to the different equality strands of; access, disability, race/ethnicity, economic equality, gender (including transgender), age, sexual orientation, faith/belief and other factors of disadvantage.

1.15 The issues raised in relation to the production of the MCS include:

a. The need for published documents to be clearly written using Plain English as far as possible
b. The need to comply with corporate standards regarding access to documents by non-English speaking residents.
c. The use of venues for exhibitions/examination that do not lead to the exclusion of anyone

1.16 With the exception of the issues highlighted above the assessment concluded that there should be no exclusion on grounds of race/ethnicity, gender, age, sexual orientation from the work of the Minerals and Waste Planning Policy Team.

1.17 The full Equalities Impact Assessment can be found as appendix A to this report.

Appropriate Assessment

1.18 A Conservation Regulations Assessment has been undertaken on the Minerals Core Strategy, in accordance with the Conservation of Habitats and Species Regulations (2010). The purpose of this assessment was to assess the likely significant effects of the plan on Natura 2000 designated nature conservation sites.

1.19 The Conservation Regulations Assessment is another way in which potential environmental effects have been considered in the development of the Minerals Core Strategy. This assessment has fed into the Sustainability Appraisal in relation to biodiversity where necessary.

Sustainability Appraisal Methodology

1.20 In accordance with the SEA Directive requirements, this section outlines the methodology followed in appraising the options and policies of the Bournemouth, Dorset and Poole Minerals Core Strategy. This assessment comprises the prediction, evaluation and mitigation of the potential effects of the MCS.

1.21 The SA of the minerals core strategy considered each option/policy against the sustainability objectives set out in the SA Framework. The appraisal involved assessing the performance of each option or proposed policy against each of the sustainability objectives, using a series of matrices. The appraisal was based on professional judgement, officer discussions, technical expertise and the evidence base, taking account of consultation recommendations at each stage.

1.22 Often it was found necessary to make a series of assumptions in order to confine the scope of the appraisal process and provide some degree of consistency in the process.

1.23 The options/policies were systematically assessed against each of the sustainability objectives considering;

a. The potential impacts/outcomes of the implementation of the proposed policy, as measured against each sustainability objective. This included a reasoned justification of the expected impacts of the policy, in terms of each of the sustainability objectives. In some cases, these include an estimation of the short, medium and long-term impacts.
b. An overall assessment, based on the reasoned justification, of the expected impact of the policy. This stated whether the proposed policy would have a negative impact, positive impact, neutral (the policy will have no specific effect) or would not be applicable (where the objective was not relevant and no assessment was made) as measured by the sustainability objective. Again, this is in some cases presented in terms of short / medium / long-term timescales, as the impacts can vary with time.
c. Potential for cumulative and in-combination effects.

1.24 A summary or conclusion of the assessment was presented at the end, drawing on the most significant outcomes of each appraisal and highlighting the contribution to overall sustainability that each policy may make. Where the appraisal has indicated a need to amend the policy wording mitigation was set out. Finally each matrix sets out the proposed indicators

to be used to monitor the effectiveness of the policy (when the Minerals Core Strategy is adopted). The indicators have been included in the 'Implementation and Monitoring' chapter of the Minerals Core Strategy, see also Chapter 9 of this report.

Testing the options/policies of the Minerals Core Strategy

1.25 A full sustainability appraisal, following the methodology set out above was undertaken at each main stages of the documents preparation (see table 3 in Chapter 2). The full appraisals can be found at appendices C, D, E, and F to this report. In addition, the appraisal summaries were included within the main Mineral Core Strategy consultation documents, at each stage, for ease of reference and to encourage stakeholder comments on the SA.

1.26 Chapter 8 of this report provides a summary of the potential sustainability issues arising from the SA/SEA at each stage that led to mitigation in the form of changes to the policy wording. The focus of these appraisal summaries concerns only the potential sustainability issues that were considered to require appropriate mitigation measures and the measures recommended.

Compliance with the SEA Directive

1.27 The sustainability appraisal is compliant with the SEA Directive. Table 1 ' Compliance with the SEA Directive' below sets out where information required by the SEA directive can be found.

Table 1 Compliance with the SEA Directive

SEA Directive requirement	Where in the plan and SA documentation can this be found?
The plan's objectives and the content of the plan	Chapter 4 of the Pre-Submission Draft contains the Vision and Objectives
The SA methodology, including in relation to consultation	Chapter 3 of the SA Report
The policy context in which the plan is being prepared	Chapter 2 of the Pre-Submission Draft, and SA Scoping Report
The sustainability objectives relevant to the Plan	The Scoping report and chapter 3 of the SA report
The baseline situation	Chapter 3 of the Pre-Submission Draft contains an outline of the spatial characteristics of the Plan area, the SA Scoping Report and Chapter 3 of the SA report
The likely situation without the plan (the business as usual scenario?	Chapter 3 of the SA Report

SEA Directive requirement	Where in the plan and SA documentation can this be found?
Key issues for the plan	The key strategic spatial issues that the Minerals Development Framework needs to tackle are set out in Chapter 3 of the Pre-Submission Draft. These issues are then developed within the chapters of the MCS that follow.
Key issues relating to European Sites	The Conservation Regulations Assessment of the Minerals Core Strategy
The alternatives considered and the rationale behind them	Chapter 4 of the SA Report
The likely significant effects of the plan including the alternatives considered	Chapter 4 and 5 of the SA Report
Mitigation and enhancement measures	Chapter 8 of the SA Report
Monitoring arrangements	Chapter 17 of the Pre-Submission Draft and Chapter 9 of the SA Report
How the SA findings were taken into account	Chapter 5 of the SA Report
Non-technical summary	Produced as a separate document attached to the SA Report

2 Consultation

2 Consultation

Consultation Requirements for the Sustainability Appraisal

2.1 The SEA Directive requires that…

" authorities with relevant environmental responsibilities and the public…shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan…and accompanying environmental report…"

2.2 The SEA Directive creates the following requirements for consultation:

- Authorities which, because of their environmental responsibilities, are likely to be concerned by the effects of implementing the plan or programme, must be consulted on the scope and level of detail of the information to be included in the Environmental Report. These authorities are designated in the SEA Regulations as the Consultation Bodies.
- The public and the Consultation Bodies must be consulted on the draft plan or programme and the Environmental Report, and must be given an early and effective opportunity within appropriate time frames to express their opinions.

2.3 In England, the 'consultation bodies' are Natural England, English Heritage and Environment Agency, and they have been included in the consultation at every stage in the development of the Minerals Core Strategy. However, Dorset County Council has consulted more widely with stakeholders, throughout each stage than is statutorily required including parish councils, district/boroughs, neighbouring authorities, community groups, the minerals industry and other key stakeholders. This has ensured that a wide range of stakeholders contributed to the development of the Minerals Core Strategy and have been able to consider the relative impact or benefits of different options. In addition, to encourage stakeholder involvement in the SA a summary of the appraisal of each option/policy was included within the main MCS consultation document.

Consultation on the scope of the sustainability appraisal

2.4 The Scoping Report was produced to provide an evidence base for the sustainability appraisal of the Minerals Core Strategy. The main part of the scoping report was organised by topics identified in the SEA Directive, plus social and economic topics to fulfil the requirements of Government guidance on sustainability appraisal.

2.5 Each topic was explored and analysed using the tasks suggested in the guidance. Relevant plans, programmes and policies were identified and reviewed, and their implications for the minerals development plan documents (DPDs) considered. Initial baseline information, often in the form of maps, was collected and included in the report.

2.6 Sustainability issues were then identified and their implications assessed for minerals DPDs as well as the baseline information to be collected. Objectives were developed to address these sustainability issues, as well as reflecting international, national, regional and

local objectives. Indicators provide the ability to assess how well the emerging policies and strategies would perform and help to achieve sustainability objectives. During 2006 stakeholders were able to influence the developing objectives during a workshop session.

2.7 Consultation on the first draft scoping report took place between 1 March and 5 April 2007, and drew a wide range of responses. All of the individual representations were assessed and the authorities' responses to these are included in a separate detailed report. The scoping report was revised as necessary. There was no need to change the sustainability objectives themselves as a result of the consultation. The 2007 Scoping Report and details of all consultation comments received, is available on request.

2.8 The objectives that were derived from the scoping report were used to assess the sustainability of the Minerals Core Strategy Issues and Options Report.

2.9 In 2009/2010 an updated scoping report was prepared. The new report provided updated baseline information and a revised set of objectives to reflect the latest guidance and policy. The sustainability objectives along with a set of draft site assessment criteria, were reviewed and debated at a stakeholder workshop held on 14 December 2009. The draft scoping report and topic papers were made available for consultation from 1 March - 6 April 2010. The documents were distributed to statutory consultees, Dorset district and borough councils, adjoining county councils and Dorset County Council specialist officers for comment. Outcomes from both the workshop and comments from the consultation fed into the production of the final document and refinement of the objectives. A summary of the outcomes is available on www.dorsetforyou.com.

2.10 The 2010 version of the sustainability appraisal scoping report and the series of accompanying topic papers is attached at Appendix B. The sustainability objectives set out in this report were used in assessing the sustainability of policies of the Draft MCS, the Revised Draft MCS and the Pre-Submission Draft.

Further Sustainability Appraisal Consultation

2.11 Sustainability appraisal of the options and policies was undertaken at each stage in the preparation of the Minerals Core Strategy (see Table 2 ' Stages in the Preparation of the Minerals Core Strategy'). At each stage the SA was available for consultation alongside the Core Strategy and a summary was contained in the MCS consultation document. The responses received were considered and where applicable taken into account. Table 3 'Summary of consultation responses to the SA' contains a breakdown of the responses made specifically to the appraisals and summary of how they were taken forward at each stage. A full list of all comments made and officers responses at each stage is available on request.

Table 2 Stages in the Preparation of the Minerals Core Strategy

Document	Date
Issues and Options Report	November – January 2008
Draft MCS	October – December 2010

Document	Date
Revised Draft MCS	July - September 2011
Pre-Submission Draft	July – September 2012

Table 3 Summary of consultation responses to the SA

Summary of Response made to the SA	Section of the MCS	DCC Response
Issues and Options MCS		
At this stage a number of respondents commented on their preferred option. Information contained within this table concentrates on suggestions for new options or where comments have been made to the appraisal process.		
The Sustainability Appraisal is misleading. The assessment should have considered the impact of sand and gravel extraction on reducing the need for further primary extraction.	BC6 - the associated sale of sand and gravel from ball clay workings	A full SA will be undertaken again for the next consultation document with clearly defined objectives and more clearly defined assumptions.
The need for an Option 3 was suggested to allow only minimal extraction of aggregates.	AS1 - Provision of land won sand and gravel	It would be against government guidance to allow only minimum extraction and therefore this is not a realistic option. Reduced levels of provision were considered and taken forward at a later stage in the Plan's preparation, driven by a change in guidance and consultation responses.
Draft MCS		
Restored sand and gravel workings have great potential to enhance biodiversity in particular areas.	Proposed Policy RE1 - Recycling Facilities	It is agreed that restored mineral workings have potential to enhance biodiversity and this is adequately covered elsewhere in the Plan and appraised as such.
Companies should put more effort into mitigating their presence.	Proposed Policy RE1 - Recycling Facilities	It was not agreed that companies don't try to mitigate their presence although accepted that there may be exceptions.

Summary of Response made to the SA	Section of the MCS	DCC Response
Limiting sand extraction to about current levels will aid the land form on site restoration, and the contribution to the regional sand apportionment is not significant, sand being relatively plentiful.	Q5 - Quantity of sand to be extracted from ball clay sites	This issue was addressed further in the Revised Draft MCS document.
It cannot be assumed that there will be adverse impacts on the landscape. Individual proposals applicable to this policy may have an overall positive impact or at least neutral impact.	Q5 - Quantity of Sand to be extracted from ball clay sites.	The SA was not amended, however if substantial changes are made to policy wording the SA will be undertaken again.
It is suggested that there is a limited correlation of restricting ball clay extraction within the AONB and having a positive impact in terms of protecting the landscape character and ecological interests. Indeed the wording used by DCC is "should have a positive impact" which may imply uncertainty of this approach.	Q5 - Quantity of sand to be extracted from ball clay sites	Restricting ball extraction would have the knock on effects of reducing transportation/lorry movements and minimising the overall size of any area worked at any one time, so reducing impacts to ecology and landscape character.
There are many positive aspects to sustainably working additional minerals from within the same development footprint	Q5 - Quantity of sand to be extracted from ball clay sites	The Revised Draft MCS contained a paragraph on the benefits of working more than one product from a single site.
Limiting the areas within the AONB is correct but flexibility of rate of extraction should be built in.	Q5 - Quantity of sand to be extracted from ball clay sites	The Revised Draft MCS contained a more flexible policy with no specific numerical limit.
The Sustainability Appraisal indicates that an adverse landscape impact is inevitable and that potentially other environmental concerns may be harmed. This contradiction needs to be resolved.	Q5 - Quantity of sand to be extracted from ball clay sites	Unfortunately some level of disturbance to the landscape is inevitable with quarrying, but remedial measures will always be implemented, and this is made clear throughout the Plan.
The SA suggests that reducing the ball clay extraction would potentially cause adverse economic impacts however it is suggested that by conserving the finite resource for longer, we are	Q5 - Quantity of sand to be extracted from ball clay sites	No specific action taken.

Summary of Response made to the SA	Section of the MCS	DCC Response
ensuring a continued economic benefit over a longer period of time.		
Our area must be protected and negative impact on our environment prevented.	Q5 - Quantity of sand to be extracted from ball clay sites	There is a national need for each County to meet the relevant sub-regional apportionment. Therefore, if sand extracted from ball clay sites is not included in the apportionment figures, additional sites will need to be found, which may be more detrimental to the environment. No specific action taken.
With reference to favouring extensions: to open a new quarry will almost always result in overburden mounds, whilst over time the extraction of stone produces a void. Once this is achieved, there is no longer a need to put the overburden above ground level. This acts in favour of extensions to existing sites.	Proposed Policy PK2 - The Scale of Purbeck Stone Extraction	It is agreed that this factor acts in favour of extensions. Although the overall strategy put forward is to maintain the traditional small-scale dispersed approach, extensions to quarries are not precluded where they offer benefits. This will be made clear in the text and the word 'new' will be deleted from Policy PK2.
The price of the rare quality stone will increase with scarcity of supply, this could encourage essential use only, and offset the lack of income stream from crushing	Proposed Policy PK3 - Crushing of Purbeck Stone	It is agreed this may be a consequence of restricting crushing although this is not the intention of the policy. No specific action taken.
The importation of foreign stone is against the principle of local distinctiveness. Perhaps the local economy can be better supported by the crushing of waste stone for local use.	Proposed Policy PK4 - Importation of Stone from outside Purbeck	It is considered that the adverse impacts resulting from crushing stone warrant restriction of this activity in this sensitive area. No specific action taken
The hand-splitting of stone will produce not only roofing tile, but also walling, cladding and crazy paving.	Proposed Policy PK5 - Service Areas	Further explanation of products included in the revision of the Plan.

Summary of Response made to the SA	Section of the MCS	DCC Response
This policy will enable reserves in the coastal strip to be exploited, on which surface working would be unacceptable	Proposed Policy PD2 - Opencast Extraction of Portland Stone	Policies PD1 and PD2 ensure that new permissions are only granted where there would be significant environmental gain achieved.
Dust is an issue as it is an unmade track, safety of the children in West Grove Terrace play area and the amenity of the residents in West Grove Terrace need to be considerations.	Proposed Policy PD4 - Reducing the Impact of Minerals Traffic	This option has been removed from the revised draft MCS.
Dust, safety and and the amenity of residents need to be considerations.	Proposed Policy PD4 - Reducing the Impact of Minerals Traffic	Amenity and safety are important considerations acknowledged through the SA.
The land needs long term management, ideally a partnership between the Quarry Company and a conservation body.	Proposed Policy PD5 - Restoration of Sites on Portland	Proposed Policy RS1 of the Revised Draft MCS states that proposals must demonstrate that those responsible for the on-going management and aftercare of restored sites have been identified and agreed.No specific action taken
Revised Draft MCS		
The Sustainability Appraisal of Proposed Policy states that Policy CC1 will only indirectly have an effect on reducing flood risk. The Sustainability Appraisal makes no mention of the need expressed in sub-paragraph 6.3 b of preparing/providing for the effects of climate change .	Proposed Policy CC1 – Preparation of Climate Change Assessments	Other sections of the Minerals Core Strategy such as policies in the Portland stone and aggregates chapters deal with the provision of stone and other materials some of which will be used in sea defences and aggregates for use in flood defence work. No specific action taken
The Sustainability Appraisal does not mention the likely result of greater distances needed to haul minerals to neighbouring counties such as	Proposed Policy AS1 - Sand and Gravel Apportionment	The National Planning Policy Framework states that when determining applications "as far as is practical, provide for the

Summary of Response made to the SA	Section of the MCS	DCC Response
Somerset and Devon if future reserves are not allocated close to those borders.		maintenance of landbanks of non energy minerals from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage sites, Scheduled Monuments and Conservation Areas;". Since there are significant reserves of sand and gravel outside the AONB, it is considered appropriate to exclude it from the BGS study.
It is noted in the revised draft MCS reference is made in the Sustainability Appraisal of Proposed Policy to 'particular aquatic ecosystems'. To avoid ambiguity it would be helpful if the Authority defined or listed those particular ecosystems.	Proposed Policy DM3 - Managing the Impact on Surface Water and Groundwater Resources	Paragraph 17.17 mentions some aquatic ecosystems.

3 Sustainability Objectives, Baseline and Context

3 Sustainability Objectives, Baseline and Context

3.1 This chapter presents an overview of the scoping stage and the development of the sustainability appraisal framework.

3.2 The scoping report established the scope of the sustainability appraisal of the Development Plan Documents being prepared by Dorset, Bournemouth and Poole Councils. This includes the range of information to be collected to form the evidence baseline, the range of other policy documents relevant to and impacting on minerals planning in Dorset and the coverage of sustainability objectives required to properly assess the sustainability and potential impacts of the emerging Minerals Core Strategy.

3.3 Two scoping reports have been produced. The original report was compiled and consulted on during 2006/2007. It was reviewed and updated during 2009/2010 in order to ensure that the evidence base and sustainability objectives properly reflected current policy and issues relevant to minerals planning in Dorset. This section concentrates on the preparation and content of the revised scoping report, which is attached at Appendix B.

3.4 The scoping report includes a series of topic papers which collectively establish the developing evidence base to be used in the production of the minerals policy documents (including the Minerals Core Strategy) and also used in developing and carrying out the required sustainability appraisal. The key outcome from the scoping report was the sustainability objectives which have been used in the sustainability appraisal of the MCS.

3.5 This chapter provides a summary of the main aspects of the scoping report, as follows;

- Review of relevant plans and programmes
- Collection of baseline information
- Identify sustainability issues
- Develop the sustainability appraisal framework - objectives, indicators and targets

Review of relevant plans and programmes

3.6 In accordance with the SEA Directive requirements, a review of relevant plans and programmes that may influence the MCS and vice versa was undertaken. This detailed review is contained in the SA Scoping Report as a series of twelve separate topic papers. These include the topics identified in the SEA Directive, along with social and economic topics to fulfil the requirements of the sustainability appraisal guidance and the Planning and Compulsory Act 2004.

3.7 Each topic was researched and analysed and the relevant plans, policies and programmes identified and reviewed in terms of their implications on the MCS. The tables below highlight the range of potential impacts, issues and key messages associated with minerals extraction that were identified in relation to each topic.

3.8 Since the scoping report was prepared there have been some important changes in legislation and policy, including the Localism Act 2011, which introduced power to abolish Regional Spatial Strategies, and the publication of the National Planning Policy Framework

which replaces the majority of Planning Policy Statements and Minerals Planning Statements. The NPPF has been reviewed and there are not considered to be any major changes in policy direction which would alter the key messages set out. However it is worth noting that a presumption in favour of sustainable development was introduced. For plan making this means that:

- Mineral planning authorities should positively seek opportunities to meet development needs; and
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid changes.

3.9 The tables below shows the policy documents reviewed at the scoping stage and the key messages that emerged, and highlights government guidance that has now been replaced.

Topic Paper 1 - Climate Change

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • Kyoto Protocol **Key National/Regional Policy** • Climate Change - the UK Programme • Planning Policy Statement: Planning and Climate Change - Supplement to Planning Policy Statement 1 • Draft Regional Spatial Strategy for the South West 2006-2026 • MPS1: Planning and Minerals	• The Minerals DPDs will have a role, albeit limited, in securing sustainable development, with reduced greenhouse gas production. However, it is likely that the influence that Minerals DPDs will be able to have will be limited. • Minerals policy will have a role in guiding mineral development into areas that will have a lesser effect on, or where there is a minimal likelihood of being affected by, climate change (particularly flooding).	Supplement to PPS1 replaced by the NPPF Draft RSS to be abolished MPS1 replaced by the NPPF

Topic Paper 2 - Biodiversity and Geodiversity

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance

Key International Policy • Directive 79/409/EEC on the conservation of wild birds (The Birds Directive) • Ramsar Convention on Wetlands of International Importance • Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (The Habitats Directive) **Key National/Regional Policy** • PPS9: Biodiversity and Geological Conservation • Wildlife and Countryside Act 1981 • Natural Environment and Rural Communities Act 2006 • Countryside and Rights of Way Act 2000 • RPG10: Regional Planning Guidance for the South West • Draft South West Regional Spatial Strategy • The Conservation (Natural Habitats etc.) Regulations **Key Local Policy** • Dorset Biodiversity Strategy • Dorset Local Geodiversity Action Plan	• The various policy documents establish the importance of protecting and enhancing biodiversity and geodiversity through the development of planning policy documents. • Establishes the hierarchy of environmentally designated sites and the relative levels of protection afforded to the various sites. • Raises the issue of cumulative impacts and the need to take these into account. • Establishes the need for minerals development to take into account the various environmental or geomorphological designations (particularly the reasons for their designation) and ensure that appropriate measures are built into the emerging policy document to protect the sites and where appropriate their surroundings, to mitigate any possible effects of essential development and where there will be an impact that cannot be mitigated to provide adequate compensatory land.	PPS9 replaced by the NPPF RPG10 and Draft RSS to be abolished

Topic Paper 3 - Water

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • EU Water Framework Directive (2000/60/EC) • EC Groundwater Directive (80/68/EEC)	• The policy guidance establishes the importance given to the water environment (ground, surface and coastal) at both national and international levels. • The emerging Minerals DPDs will be required to take careful account of any possible impacts that mineral development may cause to the water environment and minimise these impacts through provision of mitigation or if necessary avoiding the proposed development altogether. • For water, and particularly groundwater, the effects of possible cumulative impacts must be carefully considered. • Possible interaction of minerals development with the water industry must also be taken into consideration.	MPS1, MPS2, PPS23, PPS25, PPG20 all replaced by the NPPF RPG10 to be abolished Draft RSS to be abolished MWLP to be replaced by MCS/MSAD once adopted
Key National/Regional Policy • MPS1: Planning and Minerals • MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England • PPS23: Planning and Pollution Control • PPS25: Flood Risk • PPG20: Coastal Planning • RPG10: Regional Planning Guidance for the South West • Water for Life and Livelihoods - River Basin Management Plan South West River Basin District (EA) • Groundwater Protection: Policy and Practice GP3 (EA) • Draft RSS for the South West 2006-2026		
Key Local Policy • EA Catchment Flood Management Plans • Water Companies - Resource Management Plans		

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
• Dorset Coast Strategy • Bournemouth, Dorset and Poole Minerals and Waste Local Plan		

Topic Paper 4 - Historic Environment

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key National/Regional Policy • Mineral Extraction and the Historic Environment • Minerals Extraction and Archaeology: A Practice Guide • PPS5: Planning and the Historic Environment • MPS1: Planning and Minerals (Annex 3) • RPG10: Regional Planning Guidance for the South West • Draft RSS for the South West 2006-2026 • A Strategy for the Historic Environment in the South West	• The various policy documents establish the importance of the historic environment, in all its various forms. • The provision of appropriate protection/mitigation from the impacts of mineral development must be included within the emerging Minerals DPDs. • The setting of sites, monuments or landscapes must also be taken into consideration.	PPS5 and MPS1 replaced by the NPPF and Technical Guidance RPG10 and Draft RSS to be abolished MWLP to be replaced by MCS/MSAD once adopted
Key Local Policy • BDP Minerals and Waste Local Plan 1999 • Dorset Historic Landscape Characterisation *(soon available from Dorset For You website)*		

Topic Paper 5 - Landscape

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • European Landscape Convention	• The various policy documents establish the need to take account of the landscape in minerals planning, together with the weight to be accorded to the various designations. • The importance of protection and enhancement of the countryside for its own sake is also established. • Possible impacts of minerals development on the landscape must be assessed and taken into consideration, and appropriate protection and mitigation implemented. • The Minerals DPDs must include appropriate policy coverage to achieve the above.	PPS7, MPS1 and MPG7 all replaced by the NPPF and Technical Guidance RPG10 and Draft RSS to be abolished Cranborne Chase & West Wiltshire Downs AONB Management Plan 2009 - 2014
Key National/Regional Policy • PPS7: Sustainable Development in Rural Areas • MPS1: Planning and Minerals • MPG7: The Reclamation of Mineral Workings • RPG10: Regional Planning Guidance for the South West • Draft South West Regional Spatial Strategy 2006-2026		
Key Local Policy • Countryside Character Volume 8: South West *along with* the 8 Joint Character Areas which cover Dorset • The Dorset Landscape - Character Types and Character Assessment (Dorset For You website) • Cranborne Chase and West Wiltshire Downs AONB Management Plan (2004-2009) • Dorset AONB Management Plan (2009-2014) • Jurassic Coast Dorset and Devon World Heritage Site Management Plan (2009 - 14)		

Topic Paper 6 - Air Quality and Noise

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • European Air Quality Framework Directive (96/62/EC)	• Policy guidance identifies that air quality and noise can both impact on local communities. • Air quality can be reduced by both dust and chemical pollution. • The minerals DPDs will need to include policy coverage of this topic, minimising and mitigating impacts to local communities and others from air pollution or noise resulting from minerals development.	PPS23, PPG24 and MPS2 replaced by the NPPF and Technical Guidance RPG10 and Draft RSS to be abolished MWLP to be replaced by MCS/MSAD once adopted
Key National/Regional Policy • PPS23: Planning and Pollution Control • PPG24: Planning and Noise • MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England - Annex 1: Dust • MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England - Annex 2: Noise • RPG10: Regional Planning Guidance for the South West • Draft Regional Spatial Strategy for the South West		
Key Local Policy • Bournemouth, Dorset and Poole Minerals and Waste Local Plan 1999		

Topic Paper 7 - Minerals

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • Directive 2006/21/EC of the European Parliament and of the Council on the management of waste from	• The policy guidance identifies the various ways that minerals development can affect the environment and local communities. It	MPS1, MPS2, MPG2, MPG5, MPG7 and PPG14 replaced by the NPPF and Technical Guidance RPG10 and Draft RSS to be abolished

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
extractive industries (March 2009)	also identifies the issues relating to restoration and further development of worked mineral sites. • The minerals DPDs are intended to balance the needs to both (seek to) meet the sub-regional apportionment for aggregates and other recognised needs for the supply of minerals with the needs to protect the environment and local communities and when minerals development is finished to restore the site in the most appropriate fashion. • The minerals DPDs will contain the necessary policy structure to achieve these objectives.	MWLP to be replaced by MCS/MSAD once adopted
Key National/Regional Policy • MPS1: Planning and Minerals • MPS2: Controlling and Mitigating the the Environmental Effects of Minerals Extraction in England (with Annexes on Noise and Dust) • MMG1: Extraction by dredging from the English seabed • MPG2: Applications, Permissions and Conditions • MPG5: Stability in Surface Workings and Tips • MPG7: The Reclamation of Mineral Workings • PPG14: Development of Unstable Land • RPG10: Regional Planning Guidance for the South West • Draft Regional Spatial Strategy for the South West 2006-2026		
Key Local Policy • Bournemouth, Dorset and Poole Minerals and Waste Local Plan 1999		

Topic Paper 8 - Transport

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key National/Regional Policy • PPG13: Transport • MPS1: Planning and Minerals • RPG10: Regional Planning Guidance for the South West • Draft RSS for the South West 2006 - 2026 **Key Local Policy** • BDP Minerals and Waste Local Plan 1999 • South East Dorset Local Transport Plan (2006-2011) • Dorset (excluding South East Dorset) Local Transport Plan	• The policy guidance recognises the issues that must be addressed through the Minerals DPDs, such as the need to minimise transport by road and to increase the use of more sustainable means of transport such as rail or water. • The impacts on the environment and on local communities of transport, particularly road based transport, is clearly recognised and must be addressed through the policy structure of the Minerals DPDs. • The focus for the LTP3 strategy is to reduce levels of pollution in the four currently declared "Air Quality Management Areas" This will be achieved through effective implementation of targeted Air QualityAction Plans. Measures will include seeking to reduce the impact of HGVs on air quality, particularly on unsuitable routes. This will include reviewing HGV routing. Improved real time air quality monitoring at these, and other sites, will	PPG13 and MPS1 replaced by the NPPF and Technical Guidance RPG10 and Draft RSS to be abolished MWLP to be replaced by MCS/MSAD once adopted Bournemouth, Poole and Dorset Local Transport Plan 3 2011 - 2026 South East Dorset Transport Study

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
	help to identify potential problem areas at an early stage, and reduce the likelihood of further AQMAs being declared.The Minerals DPD will need to be aware of the AQMAs and potential implications for transport movements.	

Topic Paper 9 - Economic Development and Employment

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key National/Regional Policy • PPS7: Sustainable Development in Rural Areas • RPG10: Regional Planning Guidance for the South West • Draft RSS for the South West 2006-2026 • Regional Economic Strategy for South West England 2006-2015	• Guidance sets out the need to seek to strengthen local economies and the benefits that can flow from this. • In terms of its contribution to the economy, both local and regional/national, the minerals industry makes a greater contribution through production of needed minerals rather than direct employment - the numbers of people employed by the minerals industry are relatively low. • The Minerals DPDs will balance the provision of minerals, taking into account market demands and the need	PPS7 replaced by NPPF RPG10 and Draft RSS to be abolished

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
	to meet the sub-regional apportionment and the benefits accruing from that, with the need to protect the environment and local communities.	

Topic Paper 10 - Soil and Land

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key National/Regional Policy • Safeguarding our Soils: A Strategy for England • Construction Code of Practice for the Sustainable Use of Soils on Construction Sites • The State of Soils in England and Wales (EA) • PPS23: Planning and Pollution Control	• The importance of soil, the many threats it faces and the amount of soil lost to various reasons is gaining more and more prominence. • Mineral planning does have an impact on soils, through the need to remove, store and replace soils during minerals development. Provided this is properly done the impacts on soils by minerals development will be minimal and temporary.	PPS 23 replaced by NPPF MWLP to be replaced by MCS/MSAD once adopted
Key Local Policy • Bournemouth, Dorset and Poole Minerals and Waste Local Plan 1999		

Topic Paper 11 - Waste

Policy Documents	Key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key International Policy • Waste Framework Directive (91/156/EEC)	• Much of waste policy guidance refers to municipal and commercial waste. It	MPS1 replaced by the NPPF and Technical Guidance

Policy Documents	Key messages relevant to Minerals DPDs	Relevant Replacement Guidance
• Directive on the Management of Waste from the Extractive Industries (2006/21/EC) • Council Directive 1999/31/EC on the landfill of waste	has been included as part of the policy review at this stage, but may be removed later. • In the context of the minerals DPDs it is the waste produced as part of minerals extraction/development, together with construction/ demolition/ excavation waste that is of more direct relevance. • The emerging Regional Spatial Strategy assumes a regional figure for the production of recycled/secondary aggregates, which the minerals DPDs will take into account.	RPG10 and Draft RSS to be abolished MWLP to be replaced by MCS/MSAD once adopted
Key National/Regional Policy • PPS10: Planning for Sustainable Waste Management • From Rubbish to Resource: The Regional Waste Strategy for the South West • MPS1: Planning and Minerals • RPG10: Regional Planning Guidance for the South West • Draft RSS for the South West 2006-2026		
Key Local Policy • Bournemouth, Dorset and Poole Minerals and Waste Local Plan 1999 • Bournemouth, Dorset and Poole Waste Local Plan 2006 • Joint Municipal Waste Strategy for Dorset 2008-2033		

Topic Paper 12 - Population and Human Health

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
Key National/Regional Policy • PPS 1 - Delivering Sustainable Development	• Impacts of minerals working on local	RPG10 and Draft RSS to be abolished

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
• RPG10: Regional Planning Guidance for the South West • Draft Regional Spatial Strategy for the South West 2006-2026 (SWRA, 2006) • MPS 1: Planning and Minerals • MPS 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England • MPS 2 - Annex 1 Dust • MPS 2 - Annex 2 Noise • PPG 24 - Noise • Draft Guidance on Health in SEA: Consultation Document **Key Local Policy** • Dorset Minerals and Waste Local Plan 1999 • The Community Strategy for Dorset 2007-2016 - Shaping our Future (Dorset Strategic Partnership)	communities and their health are key issues to be taken into consideration as part of the SA. • Sustainable economic development, either through direct employment in the mineral industry or indirectly through the provision of raw materials required for development of other economic sectors can improve local economies, especially in rural areas where pockets of deprivation can be difficult to observe. • However, other sustainability objectives refer to the need to mitigate and/or minimise the impacts of climate change. • Minerals development can also cause unacceptable impacts on local communities, particularly through noise, dust and transportation of minerals. • The guidance recognises the importance of balancing economic development with the health of local	PPS1, MPS1, MPS2 and PPG 24 replaced by the NPPF and Technical Guidance MWLP to be replaced by MCS/MSAD once adopted

Policy Documents	Issues and key messages relevant to Minerals DPDs	Relevant Replacement Guidance
	communities. To mitigate impacts, mitigation measures are set out.	

Collection of Baseline Information

3.10 The collection of baseline information is a key component of the SA process and a legal requirement under the SEA Directive. This is information relevant to the production of the minerals policy documents, and on which the strategies, proposals and policies of the Minerals Core Strategy will be based. Baseline information helps to provide a basis for predicting and monitoring effects and helps to identify sustainability issues and problems.

3.11 The evidence base is constantly evolving and remains a 'living draft', which will be regularly updated (see Table 5 'New Local guidance since the preparation of the Scoping Report')as new legislation, policy and research is produced. The baseline information is presented in the various topic papers of the scoping report, including maps as appropriate. A summary of the key baseline evidence that can be found in the topic papers is set out in Table 4 ' Key Baseline Information'.

Table 4 Key Baseline Information

Topic Paper	Key Baseline Information
Topic Paper 1 - Climate Change	Targets for greenhouse gas emission reduction and estimated figures for carbon dioxide emissions emitted in Dorset.
Topic Paper 2 - Biodiversity and Geodiversity	A series of maps inc. The Dorset Nature Map, International, National and Local nature conservation designations and geology.
Topic Paper 3 - Water	Maps of Dorset rivers and catchment areas, water quality information, water resources and consumption and flood zone maps
Topic Paper 4 - Historic Environment	Maps of conservation areas, listed buildings, scheduled monuments and registered parks and gardens.
Topic Paper 5 - Landscape	Maps of landscape designations and landscape character areas
Topic Paper 6 - Air Quality and Noise	Maps of tranquillity areas and intrusion maps

Topic Paper	Key Baseline Information
Topic Paper 7 - Minerals	Maps of minerals sites and data on aggregates production/landbanks
Topic Paper 8 - Transport	Data on traffic growth and maps of traffic flows, key transport routes and available methods of alternative transport
Topic Paper 9 - Economic Development and Employment	Key economic indicators and employment by sector (inc the minerals industry)
Topic Paper 10 - Soil and Land	Map showing agricultural land classification in Dorset.
Topic Paper 11 - Waste	Construction and Demolition Waste and secondary/recycled aggregates data.
Topic Paper 12 - Population and Human Health	Population density maps and key statistics, Dorset age structure, population change and life expectancy. Specific impacts of minerals exploitation

New Local Policy Guidance since the Preparation of the Scoping Report

3.12 Since the preparation of the scoping report in 2009/2010, subsequent new guidance which has been published has been reviewed (see Table 5 'New Local guidance since the preparation of the Scoping Report' below) in order to ensure that the evidence base and sustainability objectives properly reflect current policy and issues relevant to minerals planning in Dorset. None of the new guidance is considered to raise new issues that are significant enough to warrant a review of the sustainability objectives.

Table 5 New Local guidance since the preparation of the Scoping Report

Policy Document	Key messages relevant to minerals planning
C-Scope Marine Plan (relevant to topic paper 3 - Water)	A pilot, non-statutory marine plan. It aims to provide a strategic plan to manage, regulate and protect the marine and coastal environment. It applies to an area from Portland Bill in the west to Durlston Head in the east, extending 12 nautical miles into the sea. It is of relevance to minerals planning in terms of identifying dredging /dredged material disposal sites and opportunities for marine transport as well as the many, often competing activities within the area.

Policy Document	Key messages relevant to minerals planning
Bournemouth, Dorset and Poole Energy Efficiency Strategy and Action Plan. Nov 2009	The aim of the strategy is "for the people of Bournemouth, Dorset and Poole to work together to improve energy efficiency in our homes, communities and workplaces and cut our carbon emissions." Its target is to achieve a 30% reduction in CO2 emissions by 2020, relative to 2005, in line with national targets. Minerals policy will have a role in guiding mineral development into areas that will have a lesser effect on, or where there is a minimal likelihood of being affected by, climate change.
The Dorset Heathlands Interim Planning Framework 2010-11	The framework applies to the local authorities in SE Dorset whose areas contain lowland heath protected by international designations. Its purpose is to ensure that there is no net increase in urban pressures on the heaths as a result of additional residential development between 400 metres and five kilometres of heathland. Although it does not apply directly to minerals development there could be knock on effects – for instance a possible reduction in demand for some minerals as a result of its impact on construction levels in SE Dorset. There could be some displacement issues as a result of mineral workings close to sensitive heathland. Also competition for open land with proposed "Suitable Alternative Natural Greenspace" that are proposed to mitigate residential development although this could also present restoration opportunities. As with other policy it also establishes the need for minerals development to take into account the heathland designations (particularly the reasons for their designation) and ensure that appropriate measures are built into the emerging policy document to protect the sites and where appropriate their surroundings, to mitigate any possible effects of essential development and where there will be an impact that cannot be mitigated to provide adequate compensatory land.

Policy Document	Key messages relevant to minerals planning
Wild Purbeck Nature Improvement Area (2012)	One aim of the designation of Wild Purbeck NIA (which covers the local authority area of Purbeck District Council), is that communities and businesses from both within and outside the area understand the importance their contributions make to the area's natural functions. For the implications for minerals development see above.
Bournemouth, Dorset and Poole Workspace Strategy Nov 2008 and Workspace Strategy Update (2012)	The Workspace Strategy seeks to ensure that there is a delivery of sufficient, appropriate employment land and quality of employment premises to meet business requirements and ensure the sustainable growth of the sub-regional economy. The Strategy provides a baseline review and assessment of the sub-region and establishes demand and supply patterns. It also includes a Delivery Plan. In terms of its contribution to the economy, both local and regional/national, the minerals industry makes a greater contribution through production of needed minerals rather than direct employment - the numbers of people employed by the minerals industry are relatively low. The Minerals DPDs will balance the provision of minerals, taking into account market demands, with the need to protect the environment and local communities.
Dorset Coast Strategy 2011 - 21	A high level non-statutory document which aims to set out a consensus view on the way in which the members of the Dorset Coast Forum will work together to improve the planning and management of the Dorset Coast and inshore waters. It applies to the whole Dorset coast from Lyme Regis in the west to Chewton Bunny (Christchurch) in the east. It is of relevance to minerals planning in terms of supporting the use of local materials for beach replenishment operations; support for the sustainable development of

Policy Document	Key messages relevant to minerals planning
	Dorset's ports and harbours which may be of relevance for the transport of minerals; and support for the development of marine industries, which may increase demand for local minerals.

Identify sustainability issues and developing the sustainability appraisal framework

3.13 From the review of plans and programmes, key messages and collation of baseline information a series of issues and problems facing the plan area relating to each topic were identified. These issues developed into 16 sustainable development objectives. The objectives are sub-divided into environmental (A1-A8), economic (A9 - A12) and social (A13 - A16) groups, although most have a degree of overlap.

3.14 The sustainability appraisal framework provides a way in which the options/strategies/policies/proposals of the Minerals Core Strategy can be appraised to assess their potential impacts on the environment, and to what extent they promote sustainability.

3.15 The SA objectives form the foundation of the SA framework and together with the criteria or indicators which assist in testing and measuring objectives are set out in tables; Table 6 ' Environmental Sustainability Appraisal Objectives and Indicators', Table 7 'Economic Sustainability Appraisal Objectives and Related Criteria'and Table 8 'Social Sustainability Appraisal Objectives and Related Criteria'. The criteria/indicators were used throughout as an aide-memoir to break down the meaning of each objective but were not all necessarily documented in detail for each assessment.

Table 6 Environmental Sustainability Appraisal Objectives and Indicators

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
A1 To maintain, conserve and enhance biodiversity.	• Conserve, enhance or create natural and semi-natural habitats of recognised ecological value and/or the green corridors that link them? • Directly or indirectly affect internationally or nationally designated or recognised sites or UK BAP habitats? • Conserve or enhance species diversity and avoid harm to internationally and nationally protected, scarce and rare species (including UK BAP species)? • Provide for positive management of existing habitats? • Assist species to adapt to the anticipated effects of climate change? (i.e. through connecting habitats and/or providing greenspace)?

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
	• Reflect the South West Nature Map? • Expand the spatial extent of BAP priority habitat within Dorset?
A2 To maintain, conserve and enhance geodiversity.	• Conserve or enhance geological SSSIs? • Create, extend or enhance Regionally Important Geological or Geomorphological Sites (RIGGs)? • Allow access to geodiversity resources for study? • Conserve or enhance the World Heritage Site and its setting?
A3 To maintain, conserve and enhance the landscape [4], including the coast.	• Conserve and/or enhance landscape character, quality and distinctiveness, paying particular regard to AONB and other areas of high landscape or historic sensitivity or value? • Minimise the visual intrusion of mineral operations onto sensitive or distinctive landscapes? • Cause development of land which is not sympathetic to the identified landscape character of that location? • Provide for the restoration of land to an appropriate after-use and landscape character?
A4 To maintain, conserve and enhance the historic environment. [5]	• Cause a loss of, or harm to, the character and/or setting of historic assets? • Provide for the protection and maintenance of the historic environment? • Provide new information on the historic environment, or improve education about and/or interpretation of the historic environment?
A5 To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.	• Protect or enhance the quantity and quality of ground, surface and sea waters? • Avoid adverse effects on patterns of groundwater flow and/or surface water flow? • Maintain water consumption within local carrying limits? • Encourage the efficient use of water?

4 Note that this includes townscape and seascape

5 Note that this includes archaeological sites, historic buildings, conservation areas, historic parks and gardens and other locally distinctive features and their settings.

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
A6 To reduce flood risk and improve flood management.	• Minimise the risks and impacts of flooding, having taken into account climate change? • Maintain or enhance floodplain capacity? • Minimise the numbers of people and property at risk from flooding in a changing climate?
A7 To maintain, conserve and enhance soil quality.	• Reduce the quantity or quality of the best and most versatile agricultural land? • Encourage the de-contamination and/or re-use of soils? • Conserve or enhance soil quality? • Reduce the capacity of the soil to hold carbon?
A8 To protect and improve air quality.	• Adversely affect air quality, particularly in Air Quality Management Areas? • Increase the likelihood of higher levels of dust in the air?

Table 7 Economic Sustainability Appraisal Objectives and Related Criteria

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
A9 To conserve and safeguard mineral resources.	• Safeguard mineral resources from loss by permanent sterilisation? • Encourage/promote the most efficient use of mineral resources?
A10 To promote the use of alternative materials.	• Encourage/promote the production and/or use of recycled or secondary aggregates?
A11 To promote and encourage sustainable economic growth, and reduce relative poverty and deprivation.	• Contribute to the supply of materials required for new developments needed to secure the economic prosperity of the area? • Maintain and enhance skills levels, particularly in the minerals and masonry industry? • Ensure that minerals activity and infrastructure does not prejudice the development of the sustainable tourism industry in Dorset?

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
A12 To provide an adequate supply of minerals to meet society's needs.	• Contribute, in a sustainable way, to the supply of materials for new built development, or repair of existing built development, or to meet other needs for the mineral concerned? • Contribute to the provision of a sustainable supply of minerals?

Table 8 Social Sustainability Appraisal Objectives and Related Criteria

Sustainability Appraisal Objectives	To what extent does the strategic option, objective, strategy, or policy...
A13 To sustain and where possible improve the health and quality of life of the population.	• Contribute to the promotion of healthy lifestyles and improve the quality of life? • Cause a greater impact from mineral development (including factors such as noise and dust) on the health and wellbeing of local communities? • Cause a cumulative impact on certain communities (i.e. through permitting further development in an area, or extending the life of an existing permission)?
A14 To adapt to and mitigate the impacts of climate change.	• Ensure new development minimises vulnerability and provides resilience to climate change? • Ensure the efficient use of energy, and/or the generation of renewable energy?
A15 To enable safe access to countryside and open spaces.	• Promote linkages between open spaces, and enable/improve access to the countryside ? • Provide an opportunity for Suitable Alternative Natural Greenspace?
A16 To reduce the adverse effects of the transport of minerals.	• Reduce the vehicle kilometres travelled for the transport of minerals? • Reduce the impact of road traffic, particularly heavy goods vehicles, on local communities? • Increase the potential for more sustainable forms of transport of minerals to mitigate climate change? • Change the amount of waste produced per tonne of mineral?

Testing the Minerals Core Strategy objectives against the sustainability objectives

3.16 This section of the report tests the compatibility of the Minerals Core Strategy objectives against the SA Framework.

3.17 The Pre-Submission Draft Minerals Core Strategy has an overall vision for mineral extraction in Dorset which will be delivered through a series of six strategic objectives. Both the vision and objectives have evolved through the various consultation stages to the final vision/objectives that are contained within the Publication MCS. Table 12 provides an assessment of the MCS objectives of the Pre-Submission Draft MCS compared with the SA Framework to ensure that the MCS objectives provide an appropriate basis for developing the plan the Minerals Core Strategy and reflect the principles of sustainability. Text has been used rather than symbols for the purposes of clarity.

3.18 In summary, Table 9 'SA of the Minerals Core Strategy Objectives' shows that the Minerals Core Strategy objectives provide an appropriate basis for assessing the developing plan. They reflect and address the key sustainability issues of Dorset associated with minerals extraction in Dorset, as identified at the scoping stage. Many objectives are generally compatible but there are a number of inevitable tensions or incompatibilities which will be tested through the appraisal of impacts. The key points can be summarised as:

1. Inevitably the extraction of minerals resources (strategic objectives 1 and 2) does have environmental consequences. However there are significant benefits through the provision of minerals to the economy and society. Necessary safeguards are built in through the objectives (and through the detailed policies) which seek to minimise impacts to acceptable levels.
2. Objective 3 generally performs well as it ensures a sustainable supply of minerals through efficient use of materials.
3. Objective 4 contributes to a number of the sustainability objectives and it will help to ensure that environmental and social enhancements are achieved through restoration.
4. Minimising impacts (Objective 5) meets many of the objectives of sustainability. However, it may have negative impacts on the economy and the overall delivery of minerals.
5. Objective 6 does not have a direct effect on environmental objectives. However the principle of safeguarding helps to contribute to a sustainable supply of minerals for the future.

Table 9 SA of the Minerals Core Strategy Objectives

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
1. To maintain, conserve and enhance biodiversity	Incompatible	Incompatible	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	N/A
2. To maintain, conserve and enhance geodiversity	Incompatible	Incompatible	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	N/A

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
3. To maintain, conserve and enhance the landscape, including coast	Incompatible	Possible tension – Small scale stone extraction in Purbeck may contribute to the landscape character.	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	N/A
4. To maintain, conserve and enhance the historic environment	Incompatible	Compatible	Compatible - this objective encourages the best use of stone	Compatible	Compatible	N/A
5. To maintain, conserve and enhance the quality of	Incompatible	Incompatible	N/A	Compatible	Compatible	N/A

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
ground, surface and sea waters and manage the consumption of water in a sustainable way						
6. To reduce flood risk and improve flood management	Compatible - Contribution to flood defence and flood water storage however potential surface water run off issues	Compatible - sensitive flood defence measures	N/A	N/A	N/A	N/A

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
7. To maintain, conserve and enhance soil quality	Incompatible	Incompatible	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	N/A
8. To protect and improve air quality	Incompatible - implications from dust/emissions could have localised impacts	Incompatible	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible - through green infrastructure	Compatible	N/A

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
9. To conserve and safeguard mineral resources	Incompatible - this objective would not safeguard minerals	Incompatible	Compatible - reduced need for primary minerals	N/A	N/A	Compatible
10. To promote the use of alternative materials	Incompatible	Incompatible	Compatible - objective specifically ensures the use of recycled/secondary minerals	N/A	N/A	N/A
11. To promote and encourage sustainanable economic growth and	Compatible	Compatible	Compatible	Compatible - through positive afteruses	Compatible - minimising impacts will have a positive impact on businesses and tourism	Compatible - safeguarding protects minerals resources from non minerals development

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
reduce relative poverty and deprivation						
12. To provide an adequate supply of minerals to meet society's needs	Compatible - security of supply of energy	Compatible	Compatible	N/A	Possible tension - minimising impacts could have a possible impact on opportunities for extraction	Compatible
13. To sustain, and where possible improve, the health and	Possible tension	Possible tension	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	

	Publication Minerals Core Strategy Objectives					
Sustainability Objectives	**1 Support the economic through the steady supply of minerals**	**2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials**	**3 Efficient and appropriate use of resources**	**4 Enhancement through restoration**	**5 Minimise adverse impacts on the environment, communities etc**	**6 Prevent sterilisation of minerals resources**
quality of life of the population						
14. To adapt to and mitigate the impacts of climate change	Compatible - Aggregates provide material for flood defences. Possible tension - use of hydrocarbons contributes to carbon emissions however local supply reduces transportation	Compatible - The use of local materials reduces the transportation of minerals from further afield.	Compatible - less reliance on primary minerals may reduce carbon emissions	Compatible	N/A	Compatible - safeguarding material allows for its future use for flood defences

Sustainability Objectives	Publication Minerals Core Strategy Objectives					
	1 Support the economic through the steady supply of minerals	2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	3 Efficient and appropriate use of resources	4 Enhancement through restoration	5 Minimise adverse impacts on the environment, communities etc	6 Prevent sterilisation of minerals resources
15. To enable safe access to countryside and open spaces	Possible Tension - Footpaths generally are diverted as opposed to extinguished. Long term benefits through restoration (see objective 4)	Possible Tension	Compatible - without this objective there would be greater freedom to extract primary minerals	Compatible	Compatible	N/A
16. To reduce the adverse effects of the transportation of minerals	Incompatible	Compatible - The use of local materials reduces the transportation of minerals from further afield.	Compatible - making more efficient use of minerals may reduce transportation	N/A	Compatible	N/A

The situation without the Minerals Core Strategy

3.19 Under the SEA Directive, the implications of the 'business-as-usual' scenario for the plan area must be established. This has involved considering how current policies, practices and trends might change in the future in the absence of any active intervention through the Minerals Core Strategy. Developing an understanding of how the area might change without the plan has assisted in 'future proofing' options and policies and in justifying the interventions ultimately set out in the plan.

3.20 The NPPF includes a presumption in favour of sustainable development. Guidance suggests that where a plan is absent, out of date or silent on a particular issue then applications should be approved. It is therefore vital that work on the Minerals Core Strategy progresses to adoption in order for up to date policy guidance to exist to guide decision making within the plan area up to 2028. The preparation of the Minerals Core Strategy has involved the collection of essential data on each of the minerals types in order to assess potential resources and provide an up to date assessment of future needs.

3.21 The strategy for the future provision of sand and gravel has been developed in order to ensure that the plan provides for an adequate and steady supply of minerals to meet the needs of society. The Pre-Submission Minerals Core Strategy includes a reduced level of provision of sand and gravel on previous levels. The MPA is confident that this is an appropriate level allowing for the MSAD to identify sufficient sites and reducing the likely hood of sites being permitted on appeal. Resource areas have also been developed from within which future sites will be located. Without this strategic steer sites are more likely to come forward for consideration from the wider plan area which includes the most sensitive locations such as the AONB and ecologically sensitive areas.

3.22 The strategy for the future provision of ball clay has been developed in order to ensure continued supply whilst safeguarding and enhancing the landscape and ecology. Given the low levels of current permitted reserves of ball clay in Dorset, if ball clay production is to continue further resources will be required and the Minerals Core Strategy is essential in ensuring this is undertaken sensitively given remaining reserves are located in an area of high landscape and ecological importance. The Minerals Core Strategy has assessed the strategic location of future sites and provides new guidance for the industry, based on up to date information through 'Areas of Least Landscape Sensitivity' and specific policy guidance of where sites are most likely to be considered environmentally acceptable.

3.23 The strategy for the future provision of Purbeck Stone has been developed in order to identify the most appropriate locations to maintain provision in an area of high landscape sensitivity. Given current levels of permitted reserves it will be necessary to make future provision of Purbeck Stone during the plan period. The Minerals Core Strategy has assessed the strategic location of sites and has developed an area of search which aims to minimise adverse impacts. This should ensure an adequate and steady supply of Purbeck Stone within appropriate environmental constraints and will should result in an improvement on the current situation.

3.24 The current Minerals and Waste Local Plan contains limited remaining preferred areas for future extraction of minerals in Dorset. The Minerals Sites Allocations Document will take the policies of the Minerals Core Strategy forward in order to identify future sites in sustainable locations. In the meantime the Minerals Core Strategy will provide up to date policy guidance to assist in decision making which will provide improvements on the current scenario which is based on out of date national policy.

4 Consideration of Alternative Options

4 Consideration of Alternative Options

Consideration of Options/Alternatives

4.1 The preparation of the MCS involved a number of stages whereby a number of alternative approaches to achieving the vision and objectives of the strategy have been considered and appraised. These alternatives include high level spatial options together with options covering more specific issues such as the level of minerals provision.

4.2 In November 2007 the Bournemouth, Dorset and Poole Minerals Core Strategy Issues and Options Report was published for public consultation. This document provided consultees with a description of the issues that the plan needed to deal with, supported by explanatory text, and the options for dealing with the issues. The options were developed from a review of the adopted Minerals and Waste Local Plan,other baseline data and discussions with stakeholders both internal and external.

4.3 A full SA was undertaken to compare options against each other. To aid the consultation a summary of the sustainability appraisal of the options was also included in the Minerals Core Strategy Issues and Options Report Consultation document.

4.4 Although the majority of options were considered at the Issues and Options stage further alternatives also emerged/developed and were appraised at the Draft MCS (March 2010) and the Revised Draft MCS (July 2011) stages. Some of the earlier options were procedural issues or questions and were developed in later versions. At each stage the findings of the SA informed the development of the proposed policies. Where appropriate the options were appraised against each other using the SA objectives as a means of highlighting the differences between them, and making an assessment of the most sustainable option.

4.5 Table 10 ' Key options and alternatives considered during the preparation of the Minerals Core Strategy' summarises the key options/alternatives that were considered during the preparation of the MCS. The table highlights which options were taken forward and why including the results of the SA, stakeholder consultation and influences given the baseline situation. and the basis for the options put forward.

Table 10 Key options and alternatives considered during the preparation of the Minerals Core Strategy

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Issues and Options Report (2007)				
What should the end date for the MCS be?	1. 2020 2. 2026 3. 2030 4. An alternative date	2028	Following the publication of the Issues and Options Report a new version of PPS12 was published. This required a lifespan of at least 15 years from adoption. In addition, work on the MSAD had also delayed work on the MCS and subsequently the adoption date. The date of 2028 was based on an anticipated adoption in 2012 with the addition of some flexibility in case of delay. This	2020 was presented as the shortest possible plan period, given guidance at the time (PPS12) and the anticipated adoption date. This would allow for a minimal level of minerals provision. 2026 was considered as a possible longer-term time horizon and would time in with the end date of the Regional Spatial Strategy. This would mean providing policy guidance to make provision for an additional six years of mineral supply (on the possible end date of 2020).

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			date will influence the level of provision that will need to be made and will provide certainty to communities and industry investors.	2030 was suggested due to the high level of investment required prior to and during extraction of some the minerals found in Dorset. Long term certainty through local planning policies may secure investment. However this option would involve higher levels of minerals provision.
Should the MCS make provision for further reserves of Ball Clay during the plan period?	1. Provision of further reserves 2. No provision of further reserves	Option 1 (Reflected in Policy BC1 of the Pre-submission Draft MCS)	The provision of additional reserves supports the supply of Ball Clay in terms of economic and social benefits and is consistent with national guidance. Further evidence gathering indicated that there would be a need to make	The Issues and Options and subsequent versions of Plan explained the importance (nationally and internationally), rare occurrence and value of ball clay to the economy. However, the Plan also set out the potential conflicts between the occurrence of ball clay and the nationally and internationally

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			provision for further reserves in order to maintain an adequate and steady supply before the end of the plan period Option 1 also reflected the wishes and future proposals of the sole ball clay operator in Dorset ensuring deliverability.	important ecological and environmental designations and social concerns which could make future extraction of ball clay from Dorset unacceptable. These main considerations in relation to ball clay extraction led to the development of the two options presented. The SA played an important role in the determination of whether extraction could continue given the sensitive environment. Consultation responses also generally agreed that further provision should be made.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Should the Ball Clay Consultation Area be updated?	1. The consultation area should remain as it is 2. Revise through the MCS 3. Revise as a separate piece of work	Option 2 Revised through consultation with the industry and included within the MCS (Reflected in Chapter 8 of the Pre-submission Draft MCS)	Safeguarding resources from sterilisation by non-minerals development is an important aspect of sustainable development. As the original Consultation Area was over 50 years old, it was considered appropriate to review/revise it. This work was done in consultation with the ball clay industry to ensure that it reflected up to date geological information. The revised boundary was included within subsequentversions of the MCS.	These options were put forward to consider if new evidence justified a review of the ball clay consultation area, and if so how this should be achieved. Revision through the MCS would ensure that full consideration was given to a revised consultation area, includingtesting at Examination. The revised Area would also be available for use in other parts of the MCS, such as in Safeguarding. A separate piece of work (not a DPD) could enable revision of the consultation area within a shorter time frame but would not have undergone the rigorous processes and independent examination of a DPD.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Should the MCS contain a presumption in favour of extraction only taking place outside the AONB?	1. Allow extraction within the AONB 2. Do not identify further sites within the AONB	Option 1 (Reflected in Policy BC1 of the Pre-submission Draft MCS)	In order for continued provision of all necessary grades of clay required for blending Policy BC2 of the Draft MCS allowed for limited quantities of ball clay to be extracted. This policy was later developed, through consultation with the industry.	One of the key planning issues involved in the extraction of Ball Clay and the identification of sites is the conflict between its occurrence and environmental designations. Option 2 enabled consideration of the possibility of directing working away from the Dorset AONB. Given the status of the AONB designation and its treatment in national guidance and the AONB Mangement Plan it is necessary to consider ceasing operations within or around it. Allowing extraction within the AONB would contribute to the future of ball clay extraction in Dorset.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
				If policies were included to make no future provision from within the AONB, extraction in Dorset will eventually cease as current permitted sites are exhausted. This is due to the need to source and blend reserves to meet industry requirements.
Should the associated sale of sand and gravel from Ball Clay workings be supported?	1. Extract sand and gravel whenever possible 2. Allow extraction so that restoration is not compromised 3. No extraction of sand and gravel	Option 2 (Reflected in Policy BC3 of the Pre-submission Draft MCS)	The associated extraction of sand and gravel from ball clay workings allows more minerals to be extracted from an existing quarryand therefore will be considered acceptable provided restoration is not be compromised.	Extracting sand and gravel in association with ball clay was put forward as an option because it makes best use of the material available and reduces the total amount of ground opened for extraction at any one time, potentially maximising efficiency and minimising waste material.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			The Draft MCS put forward a series of options for an appropriate limit of extraction (see below).	Such material would also contribute to the sand and gravel landbank and reduce the need for provision elsewhere. However, given the sensitive environment of the ball clay bearing areas (particularly within the AONB) appropriate restoration is important and the extraction of sand and gravel reduces the amount of material available - the option of allowing reduced quantities was therefore also later appraised. The extraction of sand and gravel in association with ball clay will have additional impacts, such as increased vehicle movements. Due to the sensitivity of the area and

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
				the poor road network, the third option was formulated.
Should Dorset continue to make provision for land won sand and gravel in line with Government and Regional guidelines?	1. Meet the guidelines requirement 2. Only partially meet the guidelines requirement in order to avoid significant adverse impacts	Option 1 (this was later amendedresulting in Policy AS1 of the Pre-submission Draft MCS)	In order to be compliant with government requirements the plan will aim to meet the sub-regional apportionment if environmentally acceptable sites can be found. Guidance changed later during the preparation of the MCS with the publication of the NPPF (and consultation on the Draft NPPF). This changed the direction of the strategy and resulted in the need for	Meeting the sub-regional apportionment was in line with national policy (MPS1) at the time and so was the first reasonable option to be considered. Evidence also suggested, at this time, that Dorset contained an adequate resource to deliver this option. The alternative of partially meeting the guidelines was considered to be a reasonable alternative given evidence of Dorset's recent output trend and due to Dorset's sensitive and constrained environment. It was acknowledged that to

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			further consideration of more refined alternatives relating to the level of provision (See below).	favour this option would require local testing in line with national policy. Further work was undertaken to develop this option at a later stage, in advance of publishing the Pre-Submission Draft, when national guidance changed.
If the guidelines requirement is not met to such an extent that Dorset's own requirements cannot be met, which sources of aggregate should be increased to ensure a sustainable supply in the county?	1. Importation of aggregates from other counties by road 2. Importation of aggregates from other counties by rail with final delivery by road	-	Although this question was posed to be considered if the guidelines were not to be met it did raise some important questions and the need for more information to be collected on cross	These options were put forward to consider the alternative options available to deliver a sustainable supply of minerals if it is found, for environmental reasons, that there are insufficient sites for future extraction of aggregates.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
	3. Landing of marine sand and gravel with final delivery by road 4. Local and imported secondary and recycled materials with final delivery by road		boundary movements, marine landings and recycled and secondary aggregates. It assisted in viewing aggregate provision as a whole. Each of these areas were developed further in the Draft MCS and Revised Draft MCS.	All the options considered were realistic options currently supplying aggregates to Dorset to some extent.
Any additional provision for land won sand and gravel, in Dorset, can be made in a number of ways through the MCS. Which of the following methods is the most appropriate?	1. Preferred Areas 2. Areas of Search 3. Criteria based approach 4. A combination of the options	Option 4 (Reflected in Policy AS1 of the Pre-submission Draft MCS)	In accordance with the Government's national policies for minerals planning the Draft MCS made the decision to identify specific sites rather than preferred areas. Preferred sites implies that a specific site boundary will be	Options 1 through 3 are possible methods that mineral planning authorities can use to identify areas for future working. Options 1 and 2 are referred to in MPS1 and Option 3 is an alternative if Options 1 and 2 prove difficult to develop.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			established and that the specific site is preferred for minerals extraction over other non identified sites. This option will provide greatest certainty to both the industry and local communities.	Option 4 provides maximum flexibility in identifying areas for future working.
If further provision of land won sand and gravel is necessary, which location is preferred?	1. River Valley Gravels 2. Plateau Gravels 3. A combination of River and Plateau Gravels	Option 3 (Resource areas were later identified in Policy AS1 of the Pre-submission Draft MCS covering both river valley and plateau gravels)	The Draft MCS made the decision that the identification of preferred sites for sand and gravel extraction should depend upon the site selection criteria rather than having a preference for a particular type of gravel. This would ensure the most appropriate sites are selected taking into account	It was the intention to set out in the MCS broad locations within which future sites will be preferred. An obvious approach to the selection of these broad areas was the distribution of resources. River valley gravels have only been worked to a limited extent in the past. There are some disadvantages as some of the deposits contain high

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			environmental, social and economic considerations. The Revised Draft later refined these areas based on the geological resources and higher level constraints (see below).	concentrations of chalk and lignite and water filled workings cause permanent change to the landscape. Plateau gravels have been worked to such an extent that only isolated pockets remain. A combination would enable the best sites to come forward to be assessed to ensure the most sustainable option and to ensure a sustainable supply of mineral. Choosing either Option 1 or Option 2 only would seriously limit the flexibility of the MCS.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
If further provision of land won sand and gravel is necessary, which of the following approaches preferred?	1. Extensions to existing quarries 2. New sites 3. No preference, the location of each site to be judged on its merits	Option 3	A flexible approach incorporating both extensions and new sites was taken forward. In some instances it might be preferable to extend the life of existing quarries however in other instances there may be new sites where extraction would be a more sustainable choice. Sites would be chosen on the basis of the site selection criteria, with no specific preference.	Extensions to existing quarries consolidate production in existing areas, and generally utilise existing facilities. However, they do prolong the period of impacts on the local environment. New sites may enable the distribution of operations across the county. This would spread the impacts of extraction, but also lead to extraction in areas possibly previously untouched. This option may be limited by the geographic distribution of the resource. Establishing no preference would allow individual sites to be judged on their merits, and would provide greatest flexibility to the MCS.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Is the MCS the appropriate document in which to make provision for construction and demolition waste recycling facilities?	1. The MCS should make provision for the location of facilities for aggregate recycling 2. The MCS should not make provision for the location of facilities for aggregate recycling	Option 1 (Reflected in Policy RE1 of the Pre-submission Draft MCS)	The MCS is considered the most appropriate document within which to consider the provision of aggregates recycling facilities because construction and demolition waste should be considered a resource as opposed to a waste.	Provision for aggregates recycling facilities could in theory be made within either a minerals or a waste plan, depending on whether the material is considered as a resource or a waste which is the reason for these options. Policy guidance encourages mineral planning authorities to assess supply options for aggregate holistically. It is therefore appropriate to include recycled aggregate in a mineral planning document.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
If the MCS makes provision for construction and demolition waste recycling facilities, which is the preferred type of location for such facilities?	1. Quarries 2. Industrial Estates	No preference	A flexible approach, considering sites both in quarries and industrial locations, was preferred. Cost savings might be achieved by producing recycled aggregate at a quarry, when transport costs and the environmental benefits of reducing lorry movements are taken into consideration. However due to the processes involved and the long-term or permanent nature of the activity, industrial locations could be more appropriate.	The two main locations where recycled aggregates can be produced were assessed against each other. Quarries may allow cost savings, including transport costs and the accrual of the environmental benefits of reducing lorry movements, especially if associated with a landfill site. Some of the necessary facilities will likely already be present, and the likely environmental impacts will already be addressed. Industrial locations may provide advantages given the nature of the activities involved, noise and the permanent nature of the

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
				activity. However, they may be prohibitively expensive.
Should the MCS support the provision of additional reserves of Purbeck Stone during the plan period?	1. Support the provision of additional reserves 2. Not make provision for additional reserves	Option 1 (Reflected in Policy PK1 of the Pre-submission Draft MCS)	Further evidence gathering indicated permitted reserves would run out before the end of the plan period and there would therefore be a need to make provision for further reserves in order to maintain an adequate and steady supply of Purbeck Stone. Therefore, acknowledging the importance of the stone and in line with national policy (MPS1) and consultation responses, the Draft MCS set out the	The Issues and Options Report and subsequent versions of Plan explained the importance (locally, nationally and to a limited extent internationally) of the stone resource. However, the Plan also set out the potential conflicts between the occurrence of Purbeck Stone and the environmental designations which could make future site selection challenging - possible justification for option 2. The SA played an important role in the determination of whether extraction could continue

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			decision to make provision for further Purbeck Stone reserves in order to maintain supply at current production levels. Maintaining provision is necessary in maintaining the character of local and nationally significant buildings and is important to the local economy.	given the sensitive environment. Consultation responses also generally agreed that further provision should be made due to the importance of this traditional industry to the economy and the need to maintain the character of local and nationally significant buildings.
Should Purbeck Stone workings be screened by mounds or left open to view?	1. Screening should be encouraged 2. Screening should be discouraged	Option 2 (Reflected in Policy PK2 of the Pre-submission Draft MCS)	The general presumption set out in the Draft MCS, supported by the SA and consultees responses, was that screening should generally be discouraged unless	Purbeck stone workings and service areas are prominent in the open and distinctive coastal landscape. Screening with mounds can hide direct views of quarrying operations

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			there are obvious environmental benefits in doing so. This general approach was carried forward with the emphasis being that sites should respect the landscape character. This was as a result of consultation particularly with the industry.	however given the open landscape they can be more obtrusive than the quarrying activity itself given that the quarrying activities are part of the area's cultural heritage.
Is the move away from traditional quarrying to intensive extraction acceptable?	1. Revert to more traditional, dispersed and scattered extraction sites 2. Favour the expansion of existing	Option 1 (Reflected in Policy PK2 of the Pre-submission Draft MCS)	The preferred strategy set out is that extraction should be generally dispersed and scattered and of a reasonable scale. This may include new sites	A key issue identified through stakeholder discussions was that over the last thirty years or so there has been a marked move away from traditional scale working to, larger

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
	extraction sites through extensions 3. Favour the concentration of Purbeck Stone extraction in one part of Purbeck		or extensions, each being judged on its merits. This is the preferred approach of the industry as it is conducive to allowing a supply of the range of stone beds. This approach also offers more effective opportunities for landscape and visual mitigation during the operation of sites which is important given the high landscape sensitivity and value of the area. In sustainability terms none of the options performed significantly better than the others. However further evidence obtained through a landscape	scale quarrying concentrated in particular areas. There have been a number of issues experienced by the industry as a result of the approach in the current Minerals & Waste Local Plan (1999) which concentrates working in particular areas. This resulted in the need to consider alternative approaches to maintaining supply. Extraction over scattered sites has obvious advantages to the environment, particularly the landscape. It allows access to a wider range of potentially more accessible stone beds than if concentrated in one area.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			study concluded that a dispersed approach was most appropriate.	Extensions would consolidate production in existing areas. Favouring the concentration of workings in particular areas was the approach adopted in the Minerals & Waste Local Plan (1999). This also consolidates production which may have negative impacts in the chosen area but benefits elsewhere.
Should support be given to the importation of stone to Purbeck quarries from overseas to supplement local traditional building stone operations?	1. Encourage the importation of foreign stone 2. Discourage the importation of foreign stone 3. Provide no policy guidance on importation of foreign stone in the MCS	Option 2 (Reflected in Policy PK5 of the Pre-submission Draft MCS)	The preferred strategy set out in the Draft MCS and Revised Draft MCS, supported by consultees and received mixed opinions by industry, was that importing stone for storage and resale from outside	Some Purbeck Stone operators import stone from sources outside of Purbeck including from other countries to increase their product ranges. This was highlighted as a potential issue as it increases lorry movements and visual impacts through the storage of this stone.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			Purbeck should be discouraged. The SA highlighted possible detrimental impacts to the local economy this approach may have, although in environmental terms would be positive. The Pre-Submission Draft developed this strategy to allow for limited importation for processing, storage and resale in certain circumstances, but overall policy supports the primacy of producing Purbeck Stone.	Options as to the appropriateness of this activity were therefore assessed. Encouraging stone importation may have economic benefits to the industry, in terms of the industry's long term economic future and the maintenance of local jobs. Discouraging stone importation was considered to be likely to have benefits on the environment (as explained above).

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
The current policy approach discourages non-traditional uses of Purbeck Stone. Which of the following options is most appropriate?	1. Promote the extraction of Purbeck Stone for traditional purposes only 2. Promote the extraction of Purbeck Stone for a wide range of uses including the crushing of stone for aggregate purposes	Option 1 (Reflected in Policy PK4 of the Pre-submission Draft MCS)	The preferred strategy set out in the Draft MCS and Revised Draft MCS, was to allow crushing only in exceptional circumstances, including for use on quarry sites. In sustainability terms this approach performs better in relation to environmental objectives but would be less positive economically. Following further input from industry, the Pre-Submission Draft developed this strategy, to enable crushing of surplus stone for an identified local need subject to a	A key issue identified relates to the use of indigenous materials, or the waste resulting from Purbeck Stone extraction, for non traditional uses such as construction aggregate. Restricting extraction for traditional purposes ensures that there is material available for use in restoration and would limit the cumulative impact of quarrying in terms of vehicle movements, noise etc in this sensitive location. Promoting the extraction of Purbeck Stone for a wider range of purposes may however make the best use of this primary

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			number of considerations. The policy approach is still restrictive in line with option 1, but aims to enable some crushing for local needs without compromising restoration or resulting in unacceptable impacts.	material and could serve a local market for crushed limestone.
Should Purbeck Stone quarries continue to be restored by backfilling or could they be restored at a lower level using less backfill material?	1. Retain all waste stone on site, for use as backfill to restore to near original ground levels 2. Retain only some waste stone on site to restore to a lower ground level	A combination of options	Policy PK7 of the Draft MCS contained a criterion to ensure that sufficient quantities of material are available to achieve intended restoration. This would allow consideration of individual sites and allow landscape to be protected as necessary and provide wider benefits including minimisation	Retaining waste on site would result in minimal vehicle movements and restoration most likely to be in keeping with the landscape character. Restoration to a lower level would allow some material to be sold, reducing wastage and providing economic benefits.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			of waste and opportunities for biodiversity and geodiversity. This specific criterion was not carried forward to the Revised Draft however Proposed Policy PK6 required detailed restoration schemes to demonstrate how the enhancement of nature conservation habitats and geodiversity interest would be achieved therefore providing full consideration yet flexibility to consider the most appropriate restoration.	

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			This approach is carried forward into the Publication MCS albeit within a more general chapter on restoration.	
Should stone processing be limited to the site from which the stone has been sourced?	1. Encourage stone processing to take place on the site from which it is extracted 2. Encourage the use of existing central service areas 3. A combination of processing on site and at central service areas	Option 3 (Reflected in Policy PK3 of the Pre-submission Draft MCS)	The preferred strategy set out in the Draft MCS, supported by consultees, was that sites should be assessed on their individual merits dependant on a number of factors. However, further knowledge allowed for a policy to discourage new, additional service areas and an additional policy to ensure sawing equipment is located within a building. These policies were	In the past the traditional small scale operations all had their own, low key processing units located in small shacks. This is unlikely to be practical with modern methods of processing. Nowadays some operators have service areas where material from a number of quarries is taken for processing. Processing on site would reduce traffic movements. However, depending on the specific location, it could give rise to negative

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			taken forward into the Revised Draft MCS and merged into Policy PK3 of the Pre-Submission Draft. This combination was not specifically assessed however it would be positive as it would allow for full consideration of environmental factors.	landscape impacts from the siting of saws and other machinery. The use of existing service areas would allow for the specialist equipment required for processing to be available in one place, which would be unrealistic in a number of smaller sites.
Should the MCS encourage underground mining as an alternative to working existing permitted reserves of Portland Stone during the plan period?	1. Continue working the current permitted reserves of Portland Stone by surface quarrying(??) even if these have significant impacts 2. The MCS should encourage alternative reserves	Option 2 (Reflected in Policy PD1 of the Pre-submission Draft MCS)	The preferred strategy set out in the Draft MCS, Revised Draft MCS and Publication MCS, supported generally by consultees, was that mining should be encouraged either as an alternative means	The key issue for Portland Stone is that much of the current extraction of stone takes place under two permissions granted in the 1950s. These permissions were not based on modern standards of environmental control.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
	worked by underground mining, in less sensitive areas, in exchange for existing permitted reserves		of working permitted reserves or mining new reserves in exchange for the relinquishment of areas with existing permission. In sustainability terms, this option performed best environmentally, however there may be negative economic impacts initially due to the set-up costs for mining. There are differing opinions within the industry on the overall economic viability of underground mining.	Continued working of permitted reserves would meet an ongoing need for Portland Stone and have economic benefits. This overall approach would be a continuation of the present strategy and is therefore a reasonable option to consider. Underground mining has environmental advantages over surface quarrying. This was considered as a realistic alternative to address the key issue for Portland Stone.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Is it appropriate to crush material unsuitable as building stone?	1. It is not appropriate to crush any Portland Stone extracted 2. It is appropriate to crush material unsuitable as building stone other than the cherty series 3. It is appropriate to crush material unsuitable as building stone including material from the cherty series	Combination of options 2 and 3 The MCS is not looking to restrict the extraction of cherty completely. (Reflected in Policy PD3 of the Pre-submission Draft MCS)	The preferred approach set out in the Draft MCS, Revised Draft MCS and Publication MCS was to encourage relinquishment of permission to extract the cherty series where this activity would have negative environmental impacts. Policy PD3 of the Pre-Submission Draft covers this issue. Consultees' responses were mixed on this issue. Following further work it was considered that extracting the cherty series from within existing permitted areas would in some case have significant	The crushing of Portland Stone overshadows the extraction of building stone in terms of annual tonnage and can result in adverse impacts. Considering the key issue for Portland, it was necessary to consider the appropriateness of the activity. The three options were developed considering the following implications: Crushing increases the adverse impacts of quarrying such as traffic. Crushing of the cherty series, in particular, gives rise to adverse impacts in terms of restoration, difficulties of recreating landforms and vehicle movements. Crushing also increases the operational life of quarries.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			negative impacts. The preferred approach was therefore developed from both options 2 and 3. In sustainability terms, the chosen approach was considered to have economic benefits and will enable the continued supply of aggregates, without the restoration difficulties which may arise from the extraction of the cherty series.	Crushing may however be the most sustainable use of this material as it reduces the total amount of ground open for quarrying given the continued need for aggregate and minimises waste and sterilisation of a resource.
Is there an opportunity to alleviate the problem of quarry related traffic having to pass through Fortuneswell?	1. Provide a lorry route down the incline and through Portland	Neither of these options were taken forward.	Further investigation established that Portland Port (the	One of the key issues associated with extraction on Portland is the impact

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	Port in order to avoid Fortuneswell 2. Continue using present route through Fortuneswell		landowner) would not support Option 1. It was therefore considered unrealistic for the MCS to take this option forward. There were no additional options identified for the alleviation of traffic through Fortuneswell.	of transporting stone off the island given the steep, winding, narrow streets. Fortuneswell was identified as a an area particularly affected and therefore an alternative option was considered in order to alleviate traffic problems.
Is there an opportunity to alleviate the problem of quarry related traffic passing through Easton?	1. Create a new lorry route through Broadcroft Quarry to by-pass Easton 2. Use highway restrictions to prevent quarry traffic passing through Easton 3. Continue using present route through Easton	Option 1 (Not brought forward to the Pre-submission Draft MCS)	The preferred option set out in the Draft MCS, supported by (limited) consultees, was to reduce lorry traffic through Easton through the use of a new lorry route through Broadcroft Quarry.	One of the key issues associated with extraction on Portland is the impact of transporting stone. Easton was identified as an area particularly affected and therefore alternative options were considered in order to alleviate traffic problems.

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			In sustainability terms this option was considered to have benefits for health and quality of life in Easton. However further investigations and discussions with the industry concluded that this option would be uneconomic given the small number of lorry movements.	The creation of a new lorry route through the existing Broadcroft Quarry would ensure mineral related traffic by-passes Easton. The use of highway restrictions such as routing signs could be implemented to ensure mineral traffic use alternative routes and prevent them passing through Easton.
Should the MCS encourage further exploration and production of on-shore oil and gas during the plan period?	1. Encourage exploration and production of hydrocarbons in Dorset through the MCS 2. Resist further exploration and	Option 1 (Reflected in Policy HY1& HY2 of the Pre-submission Draft MCS)	The strategy set out in the Draft MCS, Revised Draft MCS and Pre-Submission Draft, supported by consultees was to support further	Hydrocarbon extraction has to date been undertaken in an area of very high environmental and landscape sensitivity and therefore consideration was given to the option of resisting its

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
	production of hydrocarbons through the MCS		exploration, appraisal and production of hydrocarbons. This is in line with national policy. Supporting extraction has economic benefits. There is the potential for detrimental impacts on the environment, however it was further considered that the high value of the mineral provides for effective mitigation to alleviate environmental impacts.	further exploration and production for the benefit of the environment.
Should the MCS make provision for further reserves of "common" clay during the plan period?	1. The MCS should make provision for further reserves of "common" clay	Option 2 (Brought forward to the Pre-submission Draft MCS - no specific policy)	The strategy put forward in the Draft MCS, Revised Draft	Making provision for future reserves through the identification of specific

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	during the plan period 2. The MCS should not make provision for further reserves of “common” clay during the plan period		MCS and Pre-Submission Draft, supported by consultees, was thatfurther reserves for common clay would not be made (no sites would not be identified in the Minerals Site Allocations Document). Existing permitted reserves were considered to be sufficient for the plan period given the limited need. In addition, the Development Management policies provide an adequate framework to assess any proposals that come forward. In sustainability terms provision of additional reserves may have	sites would provide certainty to both the industry and the community. If there is no identified need for new sites for the extraction of common clay during the plan period it may be difficult to identify appropriate sites. Not identifying specific sites would require the use of development management policies to determine applications if they were to come forward.

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			economic benefits through provision of further reserves of clay. Making no additional provision in most cases has environmental benefits.	
Should the MCS make provision for reserves of chalk during the plan period?	1. The MCS should make provision for reserves of chalk during the plan period 2. The MCS should not make provision for reserves of chalk during the plan period	Option 2 (Brought forward to the Pre-submission Draft MCS - no specific policy)	The strategy put forward in the Draft MCS, Revised Draft MCS and Pre-Submission Draft, supported by consultees, was that specific provision of reserves for chalk would not be made (no sites would be identified in the Minerals Site Allocations Document). This decision took into account the low	Making provision for future reserves through the identification of specific sites would provide certainty to both the industry and the community. If there is no identified need for new sites for the extraction of chalk during the plan period it may be difficult to identify appropriate sites, particularly given its abundance. Not identifying specific sites would require

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			demand for chalk and levels of existing permitted reserves. It was considered that the Development Management policies provide an adequate framework to assess any proposals that come forward. In sustainability terms provision of additional reserves may have economic benefits through provision of further material. Making no additional provision in most cases has environmental benefits.	the use of development management policies to determine applications if they were to come forward.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Should the MCS make provision for further reserves of building stone during the plan period?	1. The MCS should make provision for further reserves of building stone during the plan period 2. The MCS should not make provision for further reserves of building stone during the plan period	Option 1 (Reflected in Policy BS1 of the Pre-submission Draft MCS)	The strategy put forward in the Draft MCS, Revised Draft MCS and Pre-Submission Draft, supported by consultees and consistent with national policy, was that extraction of further reserves of building stone would be supported. Further evidence gathering indicated that there would be a need to make provision of further reserves of particular types of stone to ensure availability through the plan period. It is acknowledged however that whilst	Making provision for future reserves through the identification of specific sites would provide certainty to both the industry and the community, and would enable supply to maintained for heritage purposes. If there is no identified need for new sites for the extraction of building stone during the plan period it may be difficult to identify appropriate sites, particularly given its wide occurrence. Not identifying specific sites would require the use of development management policies to determine applications if they were to come forward.

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			specific sites will be able to be identified in some cases, it will not be possible to anticipate need for all stones due to the nature of the industry. Specific criteria were therefore developed to enable other sites to be assessed. In sustainability terms provision of additional reserves supports supply of local buildings materials necessary to maintain the character of the local built historic environment. Policy guidance was developed in the Revised Draft MCS to include further safeguards in the form	Option 2 was considered in order to consider the impacts of further provision of building stone, in terms of all constraints including the landscape/transportation impacts.

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			of criteria to ensure appropriate sites come forward, including the need to specifically consider cumulative impacts.	
Which potential economically viable minerals in Dorset should be safeguarded?	1. Safeguard all minerals 2. Safeguard all minerals except chalk and common clay 3. Only safeguard Ball Clay	Option 2 (Reflected in Policy SG1 of the Pre-submission Draft MCS)	Given their economic importance and demand and to comply with national policy, the strategy put forward in the Draft MCS, Revised Draft MCS and Pre-Submission Draft, supported by consultees, is to safeguard all minerals except chalk and common clay. The Revised Draft and Pre-Submission Draft included one specific exception, namely a	The MCS considered whether certain minerals require a greater level of protection than others through the assessment of a series of options for which minerals to safeguard. Safeguarding all minerals is likely to place an unnecessary consultation burden on local authorities (and the MPA). Without an anticipated future demand for certain minerals, safeguarding is not considered justifiable.

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			limited area of the Wealden Clay around Swanage Brickworks that should also be safeguarded Further work was undertaken for the Publication MCS involving the exclusion of the following from the Minerals Safeguarding Area; • previous and current workings, • urban areas, • major roads and • proposed urban extensions.	Safeguarding all minerals except chalk and common clay would provide protection for those key minerals while reducing the burden on the authorities. Those minerals that are safeguarded are considered valuable within the economy and justifiably worthy of safeguarding.
Should MSA/MCA policy include the safeguarding of rail depot sites and marine wharves?	1. Yes 2. No	Option 1 (Reflected in Policy SG3 of the Pre-submission Draft MCS)	The strategy put forward in the Draft MCS, Revised Draft	Minerals facilities are difficult to replace if lost therefore this question was posed to stakeholders to

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			MCS and Publication MCS, supported by consultees and consistent with National Policy, was that existing minerals sites and facilities should be safeguarded. Their low land value often means that safeguarding is important as they could be vulnerable to pressures from redevelopment and are difficult to replace if lost.	consider whether or not they should be specifically safeguarded. Not safeguarding them would reduce the administrative burden of consultations and remove potential constraints on non-mineral development.
Which of the strategic options for a planned approach to restoration, within Dorset, is the most appropriate?	1. A general County wide restoration strategy	Combination of Options 2 and 3 (Reflected in Policy RS1 of the Pre-submission Draft MCS)	An area-based approach (which can be applied across the county) that is also relevant to specific local areas was developed in the Draft MCS, Revised Draft	Restoration of minerals sites is an important issue. It was relevant for strategic options for a planned approach to be considered through the Minerals Core Strategy.

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	2. Specific mineral/area restoration strategies 3. Continued reliance on the development of individual site specific restoration schemes		MCS and Pre-Submission Draft. This included a strategy, supported by some consultees, based on landscape character areas. This approach was developed to provide a strategic framework for locally relevant and appropriate site specific restoration schemes to be prepared at application stage and so has been developed with both options 2 and 3 in mind. This approach ensures that site restoration contributes to landscape character and creates or enhances priority	A general county wide restoration strategy would be an overarching strategy containing guidance on how mineral sites should be restored locally. This could provide an opportunity to plan ahead for long term restoration possibilities. This would ideally require the preparation of a separate SPD which is not currently identified in the development scheme, leading to potential problems over resources. However, the selected approach is applicable uniformly across the county. Specific mineral type/area strategies would work with the inevitably different characteristics of the different mineral

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			habitats in accordance with the Dorset Nature Map and Biodiversity Action Plan targets where appropriate. Its application is intended to result in site specific restoration which is appropriate to a wider (local) area, as favoured by consultees.	types/geographical areas and allow opportunities for the consideration of comprehensive and integrated restoration where a number of sites lie in close proximity. Site specific restoration schemes would be bespoke, designed for individual sites and their surroundings. This may not require specific policy guidance other than a general policy to ensure restoration to high environmental standards. The MSAD will also provide some guidance over restoration but of limited detail to ensure flexibility.

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Draft Minerals Core Strategy (2010)				
Ball Clay extraction in the AONB - what is an appropriate limit? (Assessed fully prior to the publication of the Pre-Submission Draft)	1. Limited extraction from within the AONB circa 50,000 tpa 2. Continue at present levels, circa 130,000 tpa 3. Do not identify a specific figure but rely on a more spatial approach to the identification of appropriate areas for extraction and DM policies.	Option 3 (Reflected in Policy BC1 of the Pre-submission Draft MCS - although no specific limit was carried forward)	To support the preparation of the Revised Draft MCS, the British Geological Survey were commissioned to undertake a study of the distribution of ball clay resources. One of the key conclusions was that the highest quality clays are found in the AONB and that there are unlikely to be sufficient quantities of commercial quality ball clay found outside the AONB.	Option 1 was put forward in the Draft MCS, however significant concern was shown by the Industry that this approach would have serious consequences to the continued supply of ball clay in Dorset. Further investigations and discussions with the industry were required as ball clay is a mineral of national and international importance. Following consultation on the Issues and Options Report, the preferred strategy was to maintain a supply of ball clay with only a limited amount

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			The Revised Draft MCS and the Pre-Submission Draft included a strategy to allow extraction of ball clay from within the AONB. The Revised Draft restricted extraction to areas of search (with exceptions) and the Pre-Submission Draft allowed for consideration of sites within the wider ball clay consultation area (Option 3) with a steer towards identified areas of least sensitivity. This approach should allow for the continued supply of ball clay within environmental limits.	sourced from within the AONB, due to its landscape sensitivity. It was necessary to develop further options to test the most appropriate way of achieving this. Option 1 was considered to test the impact of a reduced level of extraction within the AONB. The figure of 50,000 tonnes was selected as an arbitrary figure at the lower end of the scale, intended, to be tested through further consultation and SA.

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			In sustainability terms option 1 scores most highly in terms of reducing the environmental impacts of minerals extraction. However this option would limit the continued supply of this nationally and internationally important mineral.	Option 2 would allow extraction within the AONB to continue at existing levels. Option 3 may have environmental impacts although these are likely to be reduced through careful assessments in order to identify appropriate areas and should allow for a continued supply of minerals. Establishing no specific level would allow a more flexible approach and enable testing at a local level through the Minerals Site Allocations Document.

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What quantity of sand and gravel should be extracted from ball clay workings?	1. 30,000 tonnes per annum 2. 50,000 tonnes per annum 3. 100,000 tonnes per annum 4. 150,000 tonnes per annum	No numerical limit was carried forward.	The Draft MCS considered levels of sand and gravel that could acceptably be extracted in association with ball clay. In sustainability terms the higher figures could be expected to have more severe environmental and social impacts, particularly due to increased lorry movements and impacts on restoration. However, allowing increased extraction of sand over present levels would make a contribution to meeting the need for aggregates (albeit limited) from an extraction site that	The impacts/benefits associated with the extraction of sand and gravel from ball clay working were debated in the Issues and Options Report and accompanying SA. Following consultation on the Issues and Options Report, the preferred approach was to support limited extraction of sand and gravel in association with ball clay working. Further options were developed to test the most appropriate way of achieving this. The Draft MCS therefore set out a series of specific figures to test what an appropriate tonnage of sand and gravel extraction may be.

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			would be opened anyway and could reduce the need to identify new sites for aggregates extraction in the future. However, following consultation responses, particularly from the industry, the Revised Draft MCS did not take forward a numerical limit for what is considered an acceptable level of extraction. Suitable levels will be considered on a site by site basis. This is the approach that was taken forward in the Pre-Submission Draft.	The lowest figure of 30,000 tpa considered the impact based on current levels (2010) and the other options were to consider the impacts of a stepped increase in extraction of sand and gravel up to proposed industry levels. Given that one of the biggest negative impacts associated with extraction centres around increased lorry movements, the options were equated to lorry movements from 8 lorries per day (equivalent to present levels) to 50 lorries per day, which would be a significant increase on current levels.

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Revised Draft Minerals Core Strategy (July 2011)				
Options for Sand and Gravel Provision	Option A: Accept the suggested sub-regional apportionment figure (1.97 million tonnes) Option B: Use the average annual sales figure over the last ten years (1.62 million tonnes) Option C: Use the highest annual sales figure over the last ten years (1.81 million tonnes)	Option A (Reflected in (and amended by) Policy AS1 of the Pre-submission Draft MCS - in which a lower level of apportionment is used.	Three options for the level of provision of sand and gravel were considered. Option A would equate to provision of 22.85mt of sand and gravel over the plan period; option B would equate to making provision for 15.86 mt and option C would equate to making provision for 19.66mt. The policy approach set out in the Revised Draft MCS was that the suggested apportionment figure would be accepted and be provided for in the Minerals Site Allocations Document.	Options were considered with regards to level of provision to decide whether it was most appropriate to accept the sub-regional apportionment suggested by the South West Aggregate Working Party or whether an alternative figure could be justified. The apportionment was favoured by national guidance and supported by regional-level sustainability appraisal work. A lower figure would mean less sites to be identified and potential overall impacts on the communities and environment of Dorset.

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			This was on the basis that this was achievable and consistent with national policy. In sustainability terms there is little difference between the potential impacts of different levels of provision. They all are likely to meet society's need for sand and gravel. (Following the publication of the draft NPPF the approach to level of provision of sand and gravel changed - see below)	It was considered necessary to further test whether it was appropriate for the MCS to make provision in line with the sub-regional apportionment, or whether a lower figure could be justified. This was based on emerging policy/Localism Act/loss of RSS and suggestions from respondents to the Revised Draft MCS consultation. Use of the average annual sales figure enabled a projection to be made based on actual sales. A final alternative option developed was use of the highest recorded production (during the ten year period). This option put forward as it allows for

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				fluctuations in demand and gives more certainty in supply. (Further information on these options, and the informal consultation undertaken with the minerals industry, is contained in the Bournemouth, Dorset & Poole Draft Minerals Core Strategy Background Paper 2: Aggregates)
Minerals Core Strategy Pre-Submission Draft **(SA undertaken during January - May 2012)**				
Sand and Gravel Spatial Options	1. Present a resource area based simply on geology.	Option 2 (Reflected in Policy AS1 of the Pre-submission Draft MCS)	To provide an appropriate spatial dimension and	Option 1 would allow for greatest flexibility over choice of sites and was therefore considered as a potential option given the

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	2. Present resource areas excluding specific high level factors including: built up areas, areas with planning permission for sand and gravel extraction and the AONB 3. Develop the resource areas into more defined areas of search taking into consideration distance to markets 4. Develop the resource areas into more defined areas of search providing a further steer towards locations inc; removal of all environmental designations sensitive to quarrying, parcels of		reflecting the existing geology, the Revised Draft Minerals Core Strategy contained a series of four aggregate resource areas (reflecting option 2?) within which future quarries will be identified. Consideration was given to whether these areas could be refined in order to develop 'Areas of Search'. Option 2 allows flexibility in the choice of sites from within a wider based on existing geology, whilst discouraging extraction within the most sensitive land, (the AONB). It is	intention to identify specific sites in the MSAD at a later stage. Excluding the AONB and unrealistic areas such as urban areas was considered a sensible approach that would provide more strategic guidance than Option 1. Setting a presumption against identifying sites for sand and gravel within the AONB is consistent with national guidance. Distance to markets (option 3) is an important issue as one of the greatest negative impacts associated with extraction is the impact of minerals

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	land considered too small for development and access considerations		unlikely that permission would be granted for sand and gravel in the AONB anyway. Other uses incompatible with minerals extraction are also excluded. This should ensure supply of minerals is maintained and continued contribution to the economy and maintenance of jobs. This was the favoured approach to be taken forward by identifying specific sites within the MSAD.	transportation. Aggregates are also a low value product and for economic reasons do not travel large distances. This was therefore considered a reasonable potential way of refining the resource areas. Given the high level of environmental sensitivity in Dorset, Option 4 was considered a reasonable potential way of refining the resource areas.

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			Whilst option 3 and 4 provide increasingcertainty and exclude designated areas, thereby providing some additional protection, they may restrict extraction in other areas which, with careful site selection and carefully planned mitigation, may be appropriate. As the sand and gravel resource is strategically well located close to the majority of the urban development in Bournemouth, Dorset and Poole it was	

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			considered that option 3 would not add value to the strategy.	
Options for the level of provision of Sand and Gravel	1. Meet the guidelines requirement of 1.97 mt 2. An alternative lower level of provision	Option 2 (Reflected in Policy AS1 of the Pre-submission Draft MCS)	Following consideration of alternative levels of provision for the Revised Draft MCS, this issue was revisited in developing the Pre-Submission Draft for two primary reasons: Firstly, publication of the NPPF informed the preparation of the Pre-Submission Draft. It allowed for Local Planning Authorities to choose to use alternative figures for preparing their plans if they have new or	Given guidance contained within the NPPF further work was undertaken on alternative levels of provision and the consideration of an an appropriate level for the MCS. A report send to the minerals industry considering the options for a reduced level of apportionment suggested that the current apportionment figure for sand and gravel is too high. Historic sales rates suggest that actual sales have been lower that the

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			different information and a robust evidence base. In addition, consultation on the Revised Draft MCS generated comments from both the minerals industry and those representing environmental interests on the level of provision proposed. As a result further evidence was considered and a report considering in more detail a series of scenarios for the level of provision was subject to further consultation with selected consultees. The principles behind these options have already been	apportionment. The chosen figure will impact the number of areas that are eventually required to be identified in the MSAD. Knowledge of sites that have already come forward suggested that achieving the higher levels of provision through environmentally acceptable sites could be challenging. There has been a move away from extraction of primary aggregates nationally. A figure based on the 10 year average allows flexibility to accommodate increased rates of production in the event of construction activity increasing - it reflect dips and highs which may reflect future dips and highs.

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			assessed through the SA of the options contained within the Revised Draft MCS (above). Taking into consideration SA, consultation responses, further discussions with industry, historic trends and the potential difficulties that may be faced bringing forward future sites, it appeared that the regional apportionment figure of 1.97 mt could be seen as being too high. A more realistic yet robust position	An average of the last ten years excluding the highest and lowest, removes anomalies and includes a variety of economic periods. The highest recorded figure, allows for flexibility to accommodate increased rates of production on current levels. The median figure may be used in order not to distort the result by extreme highs and lows. Average of the last 12 years allows the use of all available data reflecting dips and highs which may reflect future highs and lows.

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			would be to plan for a level of provision of 1**.78 million tonnes per annum.** This approach was contained within the Pre-Submission Draft. (see Publication MCS for more information on how the figure of 1.78mt was reached). In practise there would be little difference between the potential impacts of the different levels of provision appraised in sustainability terms. They all are likely to meet society's need for sand and gravel. However, lower levels reduce the number of sites that would need	Consideration was also given to the addition of 10% to each of the various scenarios. This approach adds a level of robustness, allowing for some contingency to be built in to the level of provision.

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			to be allocated in the MSAD. Should market demand significantly increase the higher levels of provision would provide environmental safeguards as the risk of unacceptable sites being permitted on appeal would be reduced.	
Spatial options - area of search for the extraction of ball clay	1. Retain an area of search for ball clay - with policies that discourage working outside of these areas 2. Do not have an area of search - rely on criteria based	Option 3 (Reflected in Policy BC1 of the Pre-submission Draft MCS)	The Revised Draft MCS contained two areas of search, derived from a Landscape and Ecological Assessment, in which future sites for the extraction of ball clay will be found to allow for continued supply.	An area of search was considered as it would provide greater certainty to both the industry and the community about the location of future sites. The area of search aimed to minimise negative impacts on the

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
	policies to steer decision making 3. Retain areas in order to steer development to least sensitive areas but allow extraction outside these areas where considered appropriate		However, formal consultation and further informal discussions with the industry led DCC to accept that the areas of search would not allow for a steady supply of all the range of grades of clay required to maintain supply. The areas were retained within the Pre-Submission Draft MCS in order to steer the industry to the areas of least environmental sensitivity as a starting point but allowing sites to also come forward for consideration from within the wider ball clay consultation area.	environment including the consideration of cumulative impacts. The areas of search contained within the Revised Draft MCS would however be unlikely to provide for an adequate and steady supply of the required range of clays and therefore if this approach had been selectedan area of search and methodology would need to be reconsidered if an adequate supply of ball clay is to be provided. Reliance on criteria based policies provides less certainty but provides the flexibility to consider sites over the wider ball clay bearing area. This will allow for a range of sites to provide the range of

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			In sustainability terms, there are advantages of having an area of search as it directs future minerals sites to the most appropriate locations. However, this option may have a significant impact on the continued supply of ball clay and therefore the economy. Options 2 and 3 provide greatest flexibility to the industry and therefore are most likely to ensure an adequate and steady supply of minerals can be maintained. Option 3 maintains the area of least environmental sensitivity in order to steer development,	clays necessary to produce the products required by the market. Steering development would provide environment benefits but no certainty. Allowing for extraction outside these areas would provide the flexibility needed to provide the necessary range of clays.

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			where possible, which may provide positive benefits to the landscape and in terms of biodiversity.	
Options for the Level of Provision of Ball Clay	1. Provide for 250,000 tpa throughout the life of the Plan regardless of the environmental impacts 2. Provide for a reduced amount throughout the life of the Plan 3. Allow provision to continue at 250,000 tpa for as long as environmentally acceptable reserves can be identified	Option 3 (Reflected in Policy BC1 of the Pre-submission Draft MCS)	The Revised Draft Minerals Core Strategy took into account production trends and Industry knowledge and proposed a future annual production of 250,000 tpa. However, given the sensitivity of the ball clay area this level of provision was questioned and further work undertaken. In sustainability terms, option 1 would create unacceptable adverse environmental impacts. However this option would be	-Option 1 reflects production trends over the last 30 years and, from discussions with the industry, is the anticipated future average demand. Provision of a reduced level of ball clay would ensure that extraction could continue to contribute (albeit to a lower level) to the national/international need throughout the life of the plan period - it would essentially eke out the remaining environmentally acceptable reserve.

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			positive economically as it would maintain an adequate and steady supply of ball clay. Options 2 and 3 provide a greater level of protection to the environment. Option 2 may have a negative effect on the economic viability of the ball clay industry. Option 3 is preferred as it allows for production to continue for as long as environmentally acceptable reserves can be identified. This would ensure jobs would be maintained,	Allowing provision at the highest level, 250,000 tpa, would allow production to continue to contribute to the national/international need for a period of time. This would allow the MSAD to test the ability to identify sites for the future. If acceptable sites are unable to be identified extraction may cease or be significantly reduced within the plan period and the Plan may need revision.

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			contribute to economic growth and ensure the viability of the industry in the short to medium term.	
Options for the level of provision of Purbeck Stone	1. 18,000 tonnes per annum 2. 25,000 tonnes per annum	Option 2 (Reflected in Policy PK1 of the Pre-submission Draft MCS)	The Draft MCS anticipated further provision to maintain production at current levels of 20,000 to 25,000 tpa. A level of provision of around 25,000 tpa was maintained in the Revised Draft MCS. Further evidence gathering indicated output had been slightly lower than previously thought, whilst discussions with industry indicated that some potential growth should be accommodated.	Option 1 is the average level of production over the period 2004 - 2010. This is the first reasonable option to consider regarding an appropriate level of provision as it would enable a projection to be made based on actual sales. Option 2 takes account of lower levels of production in recent years and the need to accommodate future growth. This was

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			It was considered that option 1 may have a negative effect on the economic viability of the Purbeck Stone industry and the provision of a sufficient supply of stone. Option 2 was taken forward as it provides for an adequate supply of Purbeck Stone within environmental capacity, enables some growth in production in comparison to recent years and provides more flexibility than option 1.	considered to be a realistic and sensible alternative considering the need to maintain an adequate and steady supply.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Purbeck Stone Spatial Options	1. Rely on criteria based policies to determine appropriate development from within the wider resource area 2. Identify an Area of Search for Purbeck Stone through an assessment of landscape, ecology and the historic environment.	Option 2 (Reflected in Policy PK2 of the Pre-submission Draft MCS)	The Revised Draft Minerals Core Strategy identified the resource area within which provision for Purbeck Stone would be made. This resource area was based on geology and did not consider any constraints to delivery of Purbeck Stone, apart from the boundaries of built development and the SAC. There are considered to be significant advantages to having an area of search (option 2) from an environmental and social sustainability	Following consultation, it was considered necessary to develop the spatial options. This was particularly due to industry comments stating that a reliance on specific allocated sites may not provide a sufficient supply of the full range of stone beds due to the variability of the geology and that more flexibility was required in the strategy. Option 1 was developed as it would allow for greatest flexibility over the location of future sites .Criteria would assist in managing impacts on the sensitive Purbeck Plateau.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			point of view. Future minerals sites would be directed to the most appropriate locations which reduces potential impact on landscape, recreational corridors, the historic environment and amenity. Whilst option 1 may provide more flexibility to the industry to source the range of stone beds, it also gives rise to higher risk for adverse impacts on the environment since sites may come forward within the most sensitive parts of the plateau. Given that both options	The identification of an area of search (option 2) was considered as an appropriate option due to the highly sensitive landscape within which Purbeck Stone occurs. This option would provide greater environmental protection whilst also providing flexibility to the industry in finding suitable locations for future sites.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			enable provision of an adequate supply of Purbeck Stone, option 2 was taken forward.	
Which minerals should be safeguarded?	1. Safeguard all minerals in Bournemouth, Dorset and Poole 2. Safeguard those minerals for which there is current demand – i.e. aggregates, Portland and Purbeck stone and ball clay	Option 2 (Reflected in Policy SG1 of the Pre-submission Draft MCS)	Safeguarding has little effect on the majority of the Sustainability Objectives, since safeguarding in itself only identifies the mineral resource to be protected without having any further effects. MPAs are required by the NPPF to address safeguarding - the issue is, what/how much to safeguard. Protection of the undeveloped mineral	These options were considered to address the need to safeguard minerals while ensuring that the designated safeguarded areas were most appropriate, to reduce administrative burdens and provide adequate protection to minerals resources. Safeguarding would ensure no mineral in Dorset is sterilised by non-mineral development however it may place an unnecessary burden on local authorities if there is

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			resource must be balanced against constraints to non-minerals development and excessive administrative burdens. Option 2, safeguarding minerals currently in demand, is seen as a practical approach, reducing conflicts with non-minerals uses/users and minimising administrative requirements. This option also presents a pragmatic approach to meeting the need for minerals while	not anticipated to be a demand for certain minerals in the future. Safeguarding minerals currently in demand would provide protection for those minerals in demand without placing an unnecessary burden on the authorities. Option 1 was considered to safeguard minerals that may not be required while placing an unnecessary administrative on local authorities and so was not taken forward.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			minimising conflict and administrative demands.	
Of the minerals to be safeguarded, what proportion of the resource should be safeguarded?	1. Safeguard entire mineral resource 2. Safeguard just the area of the resource considered currently economically viable and workable.	Option 2 (Reflected in Policy SG1 of the Pre-submission Draft MCS)	Safeguarding has little effect on the majority of the Sustainability Objectives, since safeguarding in itself only identifies the mineral resource to be protected without having any further effects. In terms of conserving and safeguarding resources, Option 1 is most sustainable, in that the entire resource is protected for present and future use. However, this	These options were considered to ensure that the safeguarded areas were most appropriate to reduce administrative burdens and provide adequate protection to minerals resources. Safeguarding of the entire mineral resource, for each mineral type selected to be safeguarded, should result in no sterilisation of minerals in Dorset for which there is a demand.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			means that for those mineral types to be safeguarded, parts of the mineral resource not currently considered economically viable will be safeguarded and this couldlead to higher levels of conflict with other users. Option 2 is seen as a practical approach to addressing this, reducing conflicts with non-minerals uses/users and minimising administrative requirements.	The alternative option, safeguarding just those resources within any mineral type considered economically viable and workable was included as this would reduce the burden on the authority and not unnecessarily safeguard sites unlikely to be worked, such as those within very close proximity to sensitive receptors.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
Should the safeguarded areas include environmental designations/urban areas?	1. Include urban areas/environmental designations within the safeguarded resource. 2. Exclude urban areas/environmental designations from within the safeguarded resource.	A combination of options (Reflected in Policy SG1 of the Pre-submission Draft MCS)	Including environmental designations in the safeguarded mineral resource (option 1) has limited impacts, but is considered desirable should the environmental designations be removed, thereby making the mineral vulnerable to sterilisation. In addition, incorporation of urban areas makes prior extraction possible but it will also lead to high administrative costs/demands to operate the system. It	These options were considered to ensure that the safeguarded areas were most appropriate to reduce administrative burdens and provide adequate protection to minerals resources.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			is not considered that the benefits outweigh the costs. A combination of these two options was taken forward, safeguarding environmental designations but not safeguarding urban areas.	
Should the safeguarded resource/sites have a buffer?	1. Inclusion of buffers 2. Exclusion of buffers	Option 2	Inclusion of a buffer around the mineral resource does increase the protection of the resource, but there is no certainty how much mineral may be in the buffer. It does increase protection for sites and reduces risk of	These options were considered to ensure that the safeguarded areas were most appropriate to reduce administrative burdens and provide adequate protection to minerals resources.

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			encroachment by non-minerals development. However, increasing the area of safeguarding will increase the likelihood of conflict with non-minerals users and will increase the administrative costs (e.g. increased consultation) of the system. On balance, given what are considered to be limited benefits to be derived from the system together with the increased burdens of inclusion of extra	

Issue	Options	Option taken forward	Reasons for taking the chosen option forward or discounting other options	Basis for options put forward
			safeguarding areas, Option 2 has been taken forward.	

5 Appraisal Findings and Identified Significant Effects

5 Appraisal Findings and Identified Significant Effects

5.1 This section summarises the findings of the sustainability appraisal of the Pre-Submission Draft.

5.2 Table 11 'Significant Effects of the Implementation of the Minerals Core Strategy' sets out the results of the appraisal and identifies positive and negative impacts of the Plan's objectives, spatial strategy and detailed policies (contained within the Pre Submission Draft MCS) on the SA objectives and highlights where uncertainties exist. As required by the SEA Directive, the table specifically highlights likely significant effects on the environment, including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape.

5.3 The table sets out where the principle of the policy has the potential to have significant effects (either alone or in combination) and which of the environmental factors may be affected. Where these effects are identified an explanation of where mitigation measures are included within policies in the MCS is set out in order to prove that the plan has taken all reasonable steps to mitigate effects. Careful monitoring will be essential to ensure that all policies, especially those with the potential for specific effects, are implemented correctly and significant impacts are avoided.

5.4 In many cases the effects are uncertain and are dependent upon planning applications for sites coming forward and the effectiveness of the policies in managing negative effects of these proposals. The strategic nature of many of the proposed policies means that ultimately, the real effects of the implementation of the Minerals Core Strategy will depend on the interpretation and implementation of the polices through planning applications and the Minerals Site Allocations Document.

5.5 The SA has identified the potential effects of developments but the eventual impacts to a large extent will depend on the scale of development, nature and type of operations and the precise location of development in relation to sensitive receptors. This uncertainly will be addressed through an SA of the sites coming forward for inclusion in the Mineral Site Allocation Document and the site selection criteria set out in the Minerals Core Strategy. The MSAD will also, as appropriate, contain development criteria for each site therefore indicating where potential impacts would need to be carefully considered and possible mitigation.

5.6 In addition, at the planning application stage an Environmental Impact Assessment (EIA) will further address any remaining uncertainties related to detailed site specific matters. Mitigation measures, drawn from the EIA, can be included as a requirement of planning permissions granted for minerals development to reduce potential impacts on Dorset's environment and communities. For example, conditions can require the enclosure of storage areas and lorries to mitigate against the effects of dust and site screening / landscaping of sensitive habitats and receptors using trees, bunds etc can be required to prevent landscape impacts.

5.7 In addition to the SA, a separate Conservation Regulations Assessment (CRA) was undertaken at both the Revised Draft MCS and the Pre-Submission stages, which considered whether there would be likely significant effects on European/International nature conservation

designations from the plan. In undertaking the CRA for the policies within the Revised Draft Minerals Core Strategy, the following policies, either alone or in combination with other plans or projects, were considered to have likely significant effects on European sites . These are: AS1, RE1, BC1 (including Ball Clay Area of Search 1 and Ball Clay Area of Search 2). This was as a result of uncertainty over predicting effects due to the strategic and non-site specific nature of the MCS. Additional supporting text was recommended, which, if incorporated into the revision of the MCS, would enable the Mineral Planning Authority to be confident that the Policies would not lead to adverse effects on site integrity of European/International sites. The recommendations were incorporated as suggested.

5.8 A further CRA was also undertaken on the revised policies contained within the Pre-Submission Draft. Safeguards within policy wording to prevent the possibility of significant effects were recommended for those policies where there is a realistic pathway and where history suggests that, without safeguard, such effects could happen. Recommendations were therefore made to amend the wording of the following polices AS1, BC1, HY1, HY2 and IS1 and supporting text on this basis, as a result of uncertainty over predicting effects due to the strategic and non-site specific nature of the MCS. The assessment concluded that providing the recommended changes in wording to policy, criteria and text were incorporated, the Pre-Submission Draft is compliant with the Conservation Regulations. All the recommendations made were incorporated as suggested.

5.9 The following key points can be drawn from the sustainability appraisal of the Pre-Submission Draft objectives, spatial strategy and policies:

- The MCS objectives that promote minerals extraction have the potential to give rise to negative impacts on the environment, particularly in the short term. Implementation of the detailed development management policies should ensure mitigation of significant effects of future extraction to an acceptable level. There would however be positive impacts for the economy and to a limited extent employment opportunities.

- The spatial strategies for the delivery of minerals have the potential to give rise to negative impacts on the environment, particularly in the short term. Implementation of the detailed development management policies should ensure mitigation of significant effects of future extraction to an acceptable level. There would however be positive impacts for the economy and to a limited extent employment opportunities.

- Key strategic policies promoting the extraction of minerals (AS1, BC1, PD1, PK1, HY1, HY2) have greatest potential to give rise to significant negative impacts on the environment however most contain criteria which together with the development management policies will ensure mitigation of significant effects. The policies will result in positive impacts for the economy and will ensure a supply of minerals for society, which is of course the primary purpose of the Minerals Core Strategy.

- A number of other policies also highlighted potential negative impacts including RE1, AS4, AS5, BC3, PK4, PD2, BS1, HY5, IS1. However, it was felt that the plan has taken all reasonable steps to mitigate the potential impacts through safeguards built into policy wording and the detailed development management policies.

- Careful monitoring of the implementation of all polices, particularly the key strategic policies, will be essential to ensure significant effects are avoided.
- Cumulative impacts were identified through the implementation of a number of the spatial strategies and policies working in combination. This issue is dealt with in detail in 6 'Assessment of Cumulative and In-combination Effects'
- Generally the development management policies within the Plan will be used to prevent, reduce and as fully as possible offset any significant adverse effects on the environment and communities through the implementation of the plan.

Table 11 Significant Effects of the Implementation of the Minerals Core Strategy

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
MCS Objective 1 Support the economy through the steady supply of minerals	Inevitably the extraction of minerals resources does have environmental consequences. However there are significant benefits through the provision of minerals to the economy and society. Necessary safeguards are built in through other objectives which seek to minimise impacts to acceptable levels.	**Positive:** None identified Economy (outside of the SEA Directive) **Negative:** Biodiversity Population Human health Fauna & flora Soil Water Air Material assets Cultural heritage	This objective will be implemented through the suite of policies contained within the MCS. Future extraction, promoted through this objective has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). The detailed development management/restoration policies mitigate all the issues raised and in some cases provide positive longer term benefits. In addition, core policies for the specific minerals have criteria specific to that mineral to ensure any development will be acceptable.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Landscape	
MCS Objective 2 Strengthen the distinctiveness of Dorset's built environment through the supply of local building materials	Inevitably the extraction of stone does have environmental consequences. However there are benefits through the provision of minerals to the economy and for the purpose of conserving and enhancing the historic environment. The provision of vernacular stones enables both the repair of historic buildings and the construction of new buildings in keeping with the historic environment. Necessary safeguards are built in through other objectives which seek to minimise impacts to acceptable levels.	**Positive:** Cultural Heritage Economy (outside of the SEA Directive) **Negative:** Biodiversity Population Human health Fauna & flora Soil Water Air Material assets Landscape	This objective will be implemented through the suite of policies contained within the MCS. Future extraction, promoted through this objective has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). The detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
MCS Objective 3 Efficient and appropriate use of resources	This objective generally performs well as it ensures a sustainable supply of minerals through efficient use of materials.	**Positive:** Biodiversity Population Human health Fauna & flora Soil Water Air Material assets Landscape **Negative:** None identified	This objective will be implemented through the suite of policies contained within the MCS and may contribute to a reduction in the level of extraction of primary aggregates and therefore potentially reduced impacts on the environment. This objective would ensure no significant effects on the environment
MCS Objective 4 Enhancement through restoration	This objective contributes to a number of the sustainability objectives and it will help to ensure that environmental and social enhancements are achieved through restoration.	**Positive:** Biodiversity Population	The implementation of this objective through the suite of policies contained in the MCS, including specifically Policy RS1 and the accompanying

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Human health Fauna & flora Soil Water Material assets Cultural heritage Landscape **Negative:** None identified	guidance, should help to ensure no significant effects on the environment.
MCS Objective 5 Minimise adverse impacts on the environment, communities etc	Minimising impacts meets many of the objectives of sustainability. However, it may have impacts on the economy and the overall delivery of minerals.	**Positive:** Biodiversity Population Human health Fauna & flora Soil	The implementation of this objective through the suite of policies contained in the MCS should help to ensure no significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Water Material assets Cultural heritage Landscape **Negative:** None identified	
MCS Objective 6 Prevent sterilisation of minerals resources	The objective does not have a direct effect on environmental objectives. However the principle of safeguarding helps to contribute to a sustainable supply of minerals for the future.	N/A	N/A
Spatial Strategy i Providing an adequate and steady supply of minerals	The impact of this spatial strategy is the delivery of minerals resources which will provide benefits in terms of economic growth. In the short term there are likely to be possible tensions between the environment and mineral extraction.	**Positive:** None identified Economy (outside of the SEA Directive) **Negative:** Biodiversity	The implementation of this positive strategy, guided through the suite of policies contained within the MCS, will provide certainty for the future of minerals planning in the county. Future extraction, promoted through this strategy, has the potential to give rise to negative

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	However the detailed policies in the MCS will ensure that impacts are minimised, such as through the use of detailed restoration schemes. As minerals extraction is a temporary use of land in the longer term there could be benefits such as biodiversity enhancements.	Population Human health Fauna & flora Soil Water Air Climatic factors Material assets Cultural heritage Landscape	impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). The detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.
Spatial Strategy ii Providing a continued supply of aggregates	The strategy is to maintain a supply of aggregates, contributing to economic growth. The strategy is unlikely to result in an increased level of production than currently exists.	**Positive;** None identified Economy (outside of the SEA Directive) **Negative;**	The implementation of this positive strategy, guided through the suite of policies contained within the MCS, should provide certainty for the future of aggregates extraction in the county.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	The assessment highlighted a number of possible tensions generally related to the environmental impacts of aggregates production. The resource areas do contain the Dorset Heaths SAC, Dorset Heathlands SPA or Dorset Heathland Ramsar site. However, Policy AS1, the key policy through which this strategy will be delivered, clearly states that sites will only be considered where they would not adversely affect the integrity of theses features, specifically including effects relating to hydrology, species, displacement of recreation and proximity. Development management policies and site selection criteria ensure adequate protection of these interests.	Biodiversity Population Human health Fauna & flora Soil Water Air Climatic factors Material assets Cultural heritage Landscape	Future extraction, promoted through this strategy, has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see 6 'Assessment of Cumulative and In-combination Effects'). Along with Policy AS1,the detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	Until specific sites are assessed and included in the Minerals Site Allocations Document, it is not possible to determine specific localised impacts.		
Spatial Strategy iii Maintaining an adequate and steady supply of ball clay	The impact of the spatial strategy is continued extraction of ball clay which provides benefits to the economy during the short to medium term. Extraction beyond 10 years is more uncertain due to the conflict between the environment and the presence of the mineral. A series of potential tensions or environmental impacts can be identified, in the short to medium term, through the delivery of the strategy. Through the identification of the areas of least environmental sensitivity, future extraction will be steered towards less sensitive landscape areas and areas where there are opportunities for biodiversity enhancement and possible long term benefits.	**Positive;** None identified Economy (outside of the SEA Directive) **Negative;** Biodiversity Population Human health Fauna & flora Soil Water Air	The implementation of this strategy, guided through the suite of policies contained within the MCS and the allocation of sites within the MSAD, should provide certainty for the future of aggregates extraction in the county. Future extraction, promoted through this strategy, has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). Policy BC1, the core delivery policy for the strategy, deals with specific issues which

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	Development management policies and site selection criteria ensure adequate protection of interests. Until specific sites are assessed and included in the Minerals Site Allocations Document, specific localised impacts are impossible to determine.	Climatic factors Material assets Cultural heritage Landscape	require consideration for ball clay proposals. This along with the detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.
Spatial Strategy iv Maintaining an adequate and steady supply of Purbeck Stone from within an area of search	The impact of the spatial strategy is continued extraction of Purbeck Stone which provides benefits to the historic environment and to the economy, particularly in terms of local employment and the maintenance of traditional skills. Potential tensions and impacts do exist through the delivery of the strategy. However, the identification of an area of search aims to ensure that future sites are located within an area of least landscape and visual sensitivity. Without this area of search applications may	**Positive:** Cultural heritage Economy (outside of the SEA Directive) **Negative:** Biodiversity Population Human health Fauna & flora	The implementation of this positive strategy, guided through the suite of policies contained within the MCS, should provide certainty for the future of aggregates extraction in the county. Future extraction, promoted through this strategy, has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	come forward in areas with potential to give rise to greater adverse impacts. The strategy encourages new quarries to be generally dispersed and designed to respect the character of the distinctive limestone landscape. This will reduce short to medium term impacts. Development management policies and site selection criteria ensure adequate protection of interests.	Soil Air Climatic factors Material assets Cultural heritage Landscape	cumulative impacts with other minerals and non minerals developments (see chapter 6). Policy PK2, one of the core delivery policies for the strategy, deals with specific issues which require consideration for Purbeck Stone proposals. This along with the detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.
Spatial Strategy v Encouraging a shift from surface quarrying of Portland Stone to mining	The strategy provides for an adequate supply of Portland Stone with reduced environmental and social impacts in comparison to the current situation. Possible tensions exist as it is acknowledged that creating new mine entrances could conflict with sustainability	**Positive:** Cultural heritage Biodiversity **Negative:** Population	The implementation of this strategy, guided through the suite of policies contained within the MCS, should provide benefits over the current situation and certainty for the future of extraction in the county.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	objectives. Overall however, the strategy offers benefits in comparison to continued supply through surface quarrying.	Human health Soil Air Climatic factors Landscape	Future extraction, even through mining, has the potential to give rise to negative impacts on the environment particularly in the short term. Policy PD1 deals with specific issues which require consideration for Portland Stone mining proposals. This along with the detailed development management/restoration policies should mitigate all the issues raised and in some cases provide positive longer term benefits.
Policy SS1: Identification of Sites in the Minerals Site Allocations Document	This policy provides the delivery mechanism for the spatial strategy. The policy provides a level of certainty that an adequate and steady supply of minerals will be provided and ensures that the most appropriate sites for mineral development are allocated, taking into consideration the environment and amenity.	**Positive:** None identified **Negative:** None identified	The implementation of this policy will provide a clear planning framework which will provide certainly for the future of minerals planning in the county.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy CC1: Preparation of Climate Change Assessments	This policy contributes to the reduction of the harmful effects of climate change and ensures development takes into consideration opportunities for adaptation. It has the potential to indirectly benefit biodiversity and quality of life as well as reducing flood risk and assisting in reducing the adverse effects of minerals transportation.	**Positive:** Climatic factors Population Human health **Negative:** None identified	Ensuring developments consider and incorporate climate change mitigation measures will have positive impacts on the environment, particularly in the long term. No significant negative effects have been identified from the implementation of this policy.
Policy RE1: Production of Recycled Aggregates	The policy facilitates aggregate recycling and therefore reduces demand on primary aggregate and elevates the treatment of construction and demolition waste up the waste hierarchy, which has environmental benefits. It encourages the most sustainable use of alternative materials whilst also seeking to direct recycling facilities to appropriate locations in order to minimise impacts on amenity and landscape.	**Positive:** None identified **Negative:** Biodiversity Population Human health Fauna & flora	The principle of new sites for aggregates recycling facilities has the potential to give rise to negative impacts on the environment in the short, medium and long term. However, mitigation through allowing temporary permissions as opposed to permanent permissions within this policy and further safeguards set out in development management

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Soil Air Landscape	policies should address all these issues and ensure no significant effects. It is considered that the plan has taken all reasonable steps to mitigate the potential impacts of the implementation of this policy.
Policy AS1: Provision of Sand and Gravel	Maintaining a supply of aggregates will generally have negative environmental and amenity impacts, although the site assessment process will seek to identify the least sensitive locations for sand and gravel development within the resource blocks. Impacts will also need to be adequately mitigated in accordance with other policies and assessments. The policy will however ensure continued supply of necessary sand and gravel, at a level considered appropriate to Dorset, therefore providing economic benefits.	**Positive:** Biodiversity Economy (outside of the SEA Directive) **Negative;**Biodiversity Population Human health Fauna & flora Soil Water Air	The principle of this policy is to promote future extraction which has the potential to give rise to negative impacts on the environment particularly in the short term. In some parts of the county there is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). Mitigation through the specific policy wording and the detailed development management/restoration policies should address all the issues raised and in some cases provide positive longer term benefits.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Climatic factors Material assets Cultural heritage Landscape	It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy. However, this is a key strategic policy and implementation would result in new quarries which would present possible uncertain effects which should be carefully monitored.
Policy AS2: Landbank Provision	Maintaining landbanks would have no direct effects on the environment, however the principle assists in ensuring that unsuitable sites can be resisted since there is not an identified need. This policy will support continued supply of necessary sand and sand and gravel and avoids a shortage of particular types of material. It will be implemented through Policy AS1.	**Positive:** None identified **Negative:** None identified	N/A
Policy AS3: Crushed Rock	The policy ensures that no new sites for crushed rock are identified, since there are sufficient permitted reserves to meet the sub-regional apportionment. Where there are exceptional circumstances the	**Positive:** Biodiversity Population	As the principle of this policy is against future sites for extraction unless there are exceptional circumstances, any future extraction would bring

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	policy allows for permission to be granted, which could bring benefits (or impacts). Economic considerations would not be affected by this policy.	Human health Fauna & flora Soil Water Air Cultural heritage Landscape **Negative:** None identified	benefits to the listed issues. Additional safeguards are built in through the development management policies. This policy approach would ensure no significant effects on the environment
Policy AS4: Wharves and Depots	This policy encourages the development of new and/or expanded wharves and depots, which facilitates more sustainable transportation methods. Any new development has the potential for some adverse impacts on the environment and amenity, although the development management policies of the core strategy will ensure that impacts are minimal.	**Positive:** Air Climatic factors **Negative:** Biodiversity	As the principle of this policy is encouraging development of rail depots and wharves there are likely to be some negative impacts on the environment, as listed. Impacts may be long term and may add cumulatively to other developments in close proximity. Necessary

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Population Human health Fauna & flora Soil Cultural heritage Landscape	safeguards are built in through the development management policies. It is considered that the plan has taken all reasonable steps to mitigate the potential impacts of the implementation of this policy.
Policy AS5: Borrow Pits	Overall this policy reduces the impact of mineral transportation whilst providing a sustainable source of mineral. There are likely to be negative impacts from the development of borrow pits, however these are generally short lived as required by the policy and tend to be small in scale.	**Positive:** Air Climatic factors **Negative:** Biodiversity Population Human health Soil Water	Although the policy supports development which has the potential to give rise to negative impacts these are likely to be short term and limited to the life of the project. Safeguards are built specifically into the policy, supported by the more general development management policies to ensure no significant effects. It is considered that the plan has taken all reasonable steps to mitigate the potential impacts

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Material assets Cultural heritage Landscape	of the implementation of this policy and overall this policy should provide benefits through the reduction in mineral related traffic and associated emissions.
Policy BC1: Provision of Ball Clay	Overall, the continued supply of ball clay will meet an established need and maintain employment. However, due to the environmentally sensitive ball clay bearing area, as highlighted in this assessment, it may not be possible to maintain supply at the proposed level throughout the plan period.	**Positive:** Biodiversity Economy (outside of the SEA Directive) **Negative:** Biodiversity Population Human health Fauna & flora Soil Water Air	The principle of this policy is to promote future extraction which has the potential to give rise to negative impacts on the sensitive environment particularly in the short term. There is also the potential for cumulative impacts with other minerals and non minerals developments (see chapter 6). Mitigation through the specific policy wording and the detailed development management/restoration policies should address the issues raised and in some cases provide positive longer term benefits.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Climatic factors Material assets Cultural heritage Landscape	It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy. However, this is a key strategic policy and implementation would result in new quarries which would present possible uncertain effects which should be carefully monitored.
Policy BC2: Ball Clay Transportation	Overall this policy would have a positive impact if alternative means of transport can be found.	**Positive:** Biodiversity Air Climatic factors Cultural heritage Landscape **Negative:**	Any reduction in lorry traffic would reduce negative impacts and provide positive (albeit limited) local environmental impacts, including enhancing the tranquillity of the AONB.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		None identified	No significant negative effects have been identified from the implementation of this policy.
Policy BC3: Extraction of Sand and Gravel in association with Ball Clay within the AONB	Extracting sand and gravel in association with ball clay will reduce the need for new sand and gravel quarries to a limited extent, but will increase negative impacts on the landscape and increase traffic movements from ball clay sites. The policy however limits the scale of sand and gravel to be extracted in order to reduce these negative impacts to an acceptable level.	**Positive:** None identified **Negative:** Human health Air Landscape	Although this policy limits the scale of sand and gravel that can be extracted in association with ball clay, any additional development will add to the cumulative impacts including traffic movements, in the short term, and permanent changes to the landscape. Mitigation through the specific policy wording and the detailed development management/restoration policies should address the issues raised. No significant negative effects have been identified from the implementation of this policy. However, implementation of this policy would result in further development which

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			would present possible uncertain effects which should be carefully monitored.
Policy PK1: Provision of Purbeck Stone	The policy maintains a supply of Purbeck Stone which has benefits for the historic environment and the local economy through the supply of skilled jobs in an area with a shortage of such jobs. There may be impacts on amenity, albeit temporary in any one location. There would also be an impact on landscape and to some extent biodiversity, however the area of search has been defined to minimise such impacts.	**Positive:** Cultural heritage Economy (outside of the SEA Directive) **Negative:**Biodiversity Soil Air Cultural heritage Landscape Population Human Health	The principle of this policy is to promote future extraction which has the potential to give rise to negative impacts on the environment including adverse landscape impacts, especially from larger operations in the medium to long term. In addition the area of search proposed for future working is close to residential areas. As the stone resource is located in a fairly small geographic location there is also the potential for cumulative impacts with a number of quarries and service areas working together. (see chapter x).

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			Mitigation through the area of search, other Purbeck Stone policies and the detailed development management policies should address the issues raised and in some cases provide positive longer term benefits. It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy. However, this is a key strategic policy and implementation would result in new quarries which would present possible uncertain effects which should be carefully monitored.
Policy PK2: Consideration for Purbeck Stone Proposals	Whilst there will be negative environmental impacts from Purbeck Stone extraction, this policy aims to ensure that any new sites avoid and mitigate against significant impacts, given	**Positive:** Cultural heritage **Negative:**Biodiversity	The principle of this policy is to reduce the negative impacts of Purbeck Stone extraction to an acceptable level.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	that Policy PK1 provides for a supply of Purbeck Stone. The policy specifically addresses potential impacts on the landscape given the sensitive location of the Purbeck Stone resource.	Soil Cultural heritage Landscape	The implementation of this policy should mitigate against the potential impacts of extraction.
PK3: Service Areas	The policy seeks improvements to existing service areas and to prevent the proliferation of service areas in Purbeck. This will benefit the landscape and local residential amenity, however there could be a negative impact for the industry. The requirement to enclose sawing equipment would generally reduce adverse impacts.	**Positive:** Cultural heritage Landscape **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.
Policy PK4: Crushing of Purbeck Stone at Dimension Stone Quarries	The policy protects the landscape and amenity interests around Purbeck Stone workings by ensuring that waste stone is used in restoration where necessary. However there could be a negative economic impact because the production of secondary aggregates is restricted.	**Positive:** Cultural heritage Landscape **Negative:**Population Human health	This policy approach would help to ensure no significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy PK5: Importation of Stone from Outside Purbeck	The policy seeks to prevent additional lorry movements and potential visual impacts, thereby having a positive environmental and social outcome. However there could potentially be a negative effect on the local economy.	**Positive;** Cultural heritage Landscape **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.
Policy PD1: Underground Mining and high wall extraction of Portland Stone	Mining of Portland Stone generally has a positive impact compared with surface quarrying, although it is noted that creating a mine entrance may result in negative impacts on landscape and amenity. The policy seeks to ensure the continued supply of the nationally important Portland Stone and the local industry, whilst minimising environmental and amenity impacts.	**Positive:** Biodiversity Soil Air Cultural heritage Landscape **Negative:** None identified	The principle of this policy is to allow for future extraction through underground mining subject to a series of criteria including the requirement for significant environmental gains. Mitigation is built in through the criteria in the policy, other Portland Stone policies and the detailed development management policies. This policy approach would help to ensure no significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy PD2: Surface Quarrying of Portland Stone	This policy would allow for new quarries albeit in exceptional circumstances. However the policy requires net environmental gains which will have positive environmental effects overall. An adverse cumulative impact on the landscape may be avoided.	**Positive:** Air Cultural heritage Landscape **Negative:**Biodiversity	Although this policy allows for future extraction, this is in exceptional circumstances. Mitigation is built in through the criteria in the policy, other Portland Stone policies and the detailed development management policies. This policy approach would help to ensure no significant effects on the environment.
Policy PD3: Relinquishment of Permission	Overall positive environmental and amenity impacts due to the protection of the most sensitive areas from surface quarrying. There could be a risk of negative economic impacts; however provision of an adequate and steady supply of Portland Stone for the plan period should not be affected.	**Positive:** Biodiversity Soil Air Cultural heritage Landscape **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy PD4: Minimising Environmental Impacts of Existing Permissions	Since the thrust of this policy is to achieve improvements to the environment and general amenity, the sustainability appraisal is generally positive.	**Positive:** Biodiversity Soil Air Cultural heritage Landscape **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.
Policy PD5: Restoration of Sites on Portland	The policy seeks a positive outcome from the restoration of former workings. It particularly seeks to protect features distinctive to Portland, including the Portland SSSI, industrial archaeology and geological interests.	**Positive:** Biodiversity Landscape Cultural heritage **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy BS1: Building Stone Quarries	The policy is intended to address proposals for building stone quarries that may come forward during the plan period and identify sites in the Minerals Site Allocations Document, where appropriate. This is necessary to meet a local need for building stones, particularly to conserve the historic built environment. The policy seeks to ensure acceptable impacts on local amenity, the environment and landscape	**Positive:** Cultural Heritage **Negative:**Biodiversity Landscape	The principle of this policy is to promote future extraction, albeit of a small scale, which has the potential to give rise to negative impacts on the environment including landscape and biodiversity. Mitigation built into the policy and more generally the development management polices should ensure no significant effects. It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy.
Policy HY1: Proposals for Exploration and Appraisal	The exploration and appraisal of onshore oil and gas could have economic benefits both locally and nationally. However as with any development there could be negative environmental and amenity impacts on the local area. The policy	**Positive:** None identified Economy (outside of the SEA Directive)	The principle of this policy is to allow for exploration and appraisal of oil and gas, which has the potential to give rise to negative impacts.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	seeks to address this by ensuring that the development is located in the least sensitive area, is temporary and that safeguards are put in place.	**Negative:**Biodiversity Population Human health Water Air Climatic factors Cultural heritage Landscape	*Exploration and appraisal are generally short term activities, giving rise to impacts within this period as compared to production.* Visual impacts could occur during the life of the development, however they are likely to be more significant during construction. Disturbance and possible stress to local populations could also be experienced throughout hydrocarbon development, particularly through drilling e.g. through noise and traffic movements. Mitigation through the specific policy wording, other hydrocarbon policies and the detailed development management/restoration policies should address the

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			issues raised and in some cases provide positive longer term benefits. It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy. However, this is a key strategic policy and implementation would result in development which would present possible uncertain effects which should be carefully monitored.
Policy HY2: Proposals for Production Sites and Ancillary Development	The production of onshore oil and gas would have economic benefits both locally and nationally and would contribute to a secure energy supply. There are potential negative impacts particularly on landscape and amenity. The policy ensures that impacts are minimised and that oil and gas development provides environmental enhancements.	**Positive:** None identified Economy (outside of the SEA Directive) **Negative:**Biodiversity Population Human health	The principle of this policy is to allow for the development of well sites and facilities which has the potential to give rise to negative impacts. Impacts could be in the longer term with little opportunity for enhancement until operations have ceased.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Soil Water Air Climatic factors Cultural heritage Landscape	Enhancement could take place through the wider area whilst production is occurring. The high value of the mineral and its associated regulation also provides for effective mitigation/safeguards and may enable enhancement opportunities. Visual impacts could also occur during the life of the development, however likely to be more significant during construction. Disturbance and possible stress to local populations could also be experienced throughout hydrocarbon development, e.g. through noise, ~~dust~~ and traffic movements. Mitigation through the specific policy wording, other hydrocarbon policies and the

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			detailed development management/restoration policies should address the issues raised and in some cases provide positive longer term benefits. It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy. However, this is a key strategic policy and implementation would result development which would present possible uncertain effects which should be carefully monitored.
Policy HY3: Transportation of Hydrocarbons	The policy seeks to encourage the use of pipelines and rail haulage instead of road transport. This could have short-term environmental impacts but generally in the long-term has environmental and amenity benefits, including in terms of climate change mitigation.	**Positive:** Biodiversity Population Human health Air	The encouragement of pipelines and/or rail haulage has positive effects in the long term. Negative impacts on biodiversity and health are possible in the short term, during construction, however these are unlikely to be significant.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		Climatic factors Landscape **Negative:** None identified	It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy.
Policy HY4: Decommissioning and Restoration of Production Facilities and Ancillary Development	This policy has beneficial impacts particularly on landscape, biodiversity and amenity through restoration. The policy also requires mitigation of impacts arising from decommissioning which protects amenity interests and reduces the adverse effects of transportation.	**Positive:** Biodiversity Population Human health Cultural heritage Landscape **Negative:** None identified	This policy approach would help to ensure no significant effects on the environment.
Policy HY5: Underground Gas Storage	Although the sustainability appraisal highlights potential negative impacts related to proposals for underground gas storage, the majority of these will be minimal and limited to the construction	**Positive:** None identified **Negative:**Biodiversity	The principle of this policy is to allow for the development of underground gas storage facilities which has the potential to give rise to negative impacts.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	phase. Such impacts would be minimised through the application of this policy and the development management policies of the core strategy. Underground gas storage would provide increased security of gas supplies and would be of national economic and social importance.	Population Human health Water Cultural heritage Landscape	As highlighted in the SA, these impacts are unlikely to be significant and are likely to be in the short term, during the construction phase. Mitigation through the specific policy wording and the detailed development management policies should address the issues raised. It is considered that the plan has taken reasonable steps to mitigate the potential impacts of the implementation of this policy.
Policy IS1: Industrial Sand	Maintaining a supply of industrial sand will generally have negative environmental and amenity impacts, although the site assessment process will seek to identify the least sensitive locations for development within the resource blocks. Impacts will also need to be adequately mitigated in accordance with other policies and assessments. The policy will however ensure continued	**Positive:** None identified Economy (outside of the SEA Directive) **Negative:**Biodiversity Population	The principle of this policy is to promote future extraction which has the potential to give rise to negative impacts on the environment including adverse landscape impacts, especially from larger operations in the medium to long term.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	supply of this nationally scarce industrial mineral.	Human health Air Cultural heritage Landscape	Mitigation through the specific policy wording and the detailed development management policies should address the issues raised.
Policy SG1: Mineral Safeguarding Area	This policy specifically aims to protect the undeveloped mineral resource in Dorset, Bournemouth and Poole from sterilisation by non-mineral development and ensure a sustainable supply of mineral for future generations.	**Positive:** None identified **Negative:** None identified *As safeguarding does not preclude non-mineral development or promote mineral development	N/A
Policy SG2: Mineral Consultation Areas	This policy ensures that district and borough councils consult the MPA in cases where minerals may be sterilised by non mineral development, therefore contributing to ensuring a sustainable supply of mineral for future generations	**Positive:** None identified **Negative:**	N/A

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
		None identified	
Policy SG3: Safeguarding of Minerals Sites and Facilities	This policy specifically aims to protect existing minerals sites and facilities from sterilisation by non-mineral development and seeks to ensure a sustainable supply of mineral for future generations.	**Positive:** None identified **Negative:** None identified	N/A
Policy RS1: Restoration, Aftercare & Afteruse of Minerals development	This policy specifically seeks to secure long term social and environmental benefits through restoration and site afteruse.	**Positive:** Biodiversity Population Human health Soil Climatic factors Cultural heritage Landscape **Negative:** None identified	This policy approach would help to mitigate against significant effects on the environment.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy RS2: Retention of Plant, Machinery and Ancillary Development	This policy will ensure that sites are restored at the earliest opportunity unless there are identified needs for its retention. This has environmental and amenity benefits. There should not be significant detrimental impacts economically as plant and machinery will be able to be maintained if there is an identified need. Although adverse impacts would need to be avoided or mitigated.	**Positive:** Biodiversity Population Human health Air Cultural heritage Landscape **Negative:** None identified	This policy approach would help to mitigate against significant effects on the environment.
Policy RS3: Establishment of Local Liaison Groups	The main impact this policy has, in terms of sustainable development, is social. This policy focuses on the encouragement of the setting up of local liaison groups. These groups may discuss and address the concerns of people who live in the vicinity of mineral operations thereby attempting to improve quality of life.	**Positive:** None identified **Negative:** None identified	N/A
Policy MON1: Plan, Monitor, Manage	Monitoring the amount of mineral extracted allows effective planning of	**Positive:**	N/A

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	future mineral extraction. This ensures an adequate and steady supply of minerals to meet society's needs and to support economic growth.	None identified **Negative:** None identified	
Policy DM1: Key Criteria for Sustainable Minerals Development	Overall this policy addresses most of the sustainability objectives as its aim is to ensure that minerals development is sustainable.Those not specifically addressed are covered elsewhere in this chapter.	**Positive:** Biodiversity Population Human health Soil Water Climatic Factors Cultural heritage Landscape **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy DM2: Managing the Impacts of Minerals Development	This policy is focused on reducing the immediate impacts of a site's development on amenity. It has a positive impact in terms of protecting quality of life and health of local populations.	**Positive:** Human health Air Landscape **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.
Policy DM3: Managing the impact on surface water and groundwater resources	This policy is focused on managing impacts on water resources and addressing flood risk. It has a positive impact in protecting and enhancing the water environment, in particular aquatic ecosystems. It complements the other development management policies in this chapter.	**Positive:** Biodiversity Water Climatic Factors **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.
Policy DM4: Protection and Enhancement of Landscape Character and the Countryside	This policy is focused on reducing and mitigating impacts on the landscape and countryside. It therefore has a positive impact in terms of enhancing landscape character and protecting designations. It complements the other development management policies in this chapter.	**Positive:** Landscape Cultural heritage **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy DM5: Biodiversity and Geological interest	This policy is focused on protecting and enhancing biodiversity and geodiversity. It complements the other development management policies in this chapter.	**Positive:** Biodiversity Climatic Factors **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.
Policy DM6: Dorset & East Devon World Heritage Site	This policy is focused on protecting the World Heritage Site given its international importance. It complements the other development management policies in this chapter.	**Positive:** Landscape Cultural heritage **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
			This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.
Policy DM7: The Historic Environment	This policy is focused on protecting the historic environment and so directly addresses this sustainability objective. It complements the other development management policies in this chapter.	**Positive:** Landscape Cultural heritage **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
Policy DM8: Transport and Minerals Development	This policy specifically seeks to reduce the adverse effects of minerals transportation. This is important since some of the most significant impacts of mineral working relate to transportation.	**Positive:** Population Human health Air Climatic Factors **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment as a result of the mineral-specific policies throughout the core strategy.
Policy DM9: Extraction and Restoration within Airfield Safeguarding Areas	There are no specific effects in relation to the sustainability objectives from this policy. This policy is included for health and safety purposes, to protect aircraft from bird strike.	**Positive:** None identified **Negative:** None identified	N/A
Policy DM10: Planning Obligations	The policy has no direct effect on the sustainability objectives. However legal	**Positive:**	N/A

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	agreements which may be undertaken as a result of this policy may have benefits to many of the objectives.	None identified **Negative:** None identified	
Policy DM11: Review of Old Mineral Planning Permissions	Improving working and restoration standards through the ROMP process in line with this policy should secure benefits for the environment and amenity through the implementation of appropriate mitigation and restoration.	**Positive:** Biodiversity Population Human health Water Cultural heritage Landscape **Negative:** None identified	This policy, along with the other development management policies, intends to manage the operational impacts associated with all types of minerals development. It is positive in sustainability terms and therefore no significant negative effects arising from its implementation are identified. This policy approach would help to ensure no significant effects on the environment.
Policy MON1: Monitor and Manage	Monitoring the amount of mineral extracted allows effective planning of future mineral extraction. This ensures	**Positive:** None identified	N/A

Policy	Summary of Sustainability Appraisal	Potential Impacts	Does the Plan overcome/mitigate the potential impacts?
	an adequate and steady supply of minerals to meet society's needs and to support economic growth.	**Negative:** None identified	

Positive impacts and enhancements of the Implementation of the Minerals Core Strategy

5.10 The focus of much of this report is on the negative impacts of minerals development and issues that may require mitigation to ensure no significant negative impacts to the baseline environmental conditions. However, it is also worth highlighting the range of positive environmental impacts and enhancements that may occur as a result of the implementation of the Minerals Core Strategy. Consideration of positive impacts has been restricted to the polices contained within the Minerals Core Strategy Pre-Submission Draft and the list in Table 12 'Positive impacts and enhancements of the implementation of the Minerals Core Strategy' should not be seen as exhaustive.

Table 12 Positive impacts and enhancements of the implementation of the Minerals Core Strategy

Policy Reference	Nature of positive impact
SS1: Identification of Sites in the Minerals Site Allocations Document	The policy provides a level of certainty that an adequate and steady supply of minerals will be provided and ensures that the most appropriate sites for minerals development are allocated, taking into consideration the environment and amenity.
CC1: Preparation of Climate Change Assessments	This policy contributes to the reduction of the harmful effects of climate change and opportunities for adaptation. It ha s the potential to indirectly benefit biodiversity and quality of life as well as reducing flood risk.
RE1: Production of Recycled Aggregates	Environmental benefits through the facilitation of aggregates recycling therefore reducing demand on primary aggregates.
BC2: Ball Clay Transportation	Minerals transportation is one of the biggest negative impacts of extraction. Implementation of this policy would have a positive impact on the environment if alternative means of transport can be found.
BC3: Extraction of Sand and Gravel in association with Ball Clay within the AONB	This policy limits the scale of sand and gravel to be extracted in order to reduce negative impacts to an acceptable level.
PK1: Provision of Purbeck Stone	Maintaining a supply of Purbeck Stone has benefits to the historic environment and the area of search should minimise other environmental impacts.
PK2: Considerations for Purbeck Stone Proposals	This policy aims to ensure avoidance and mitigation of significant impacts specifically addressing landscape impacts.

Policy Reference	Nature of positive impact
PD3: Relinquishment of Permission	There should be positive environmental and amenity impacts from the implementation of this policy through the protection of the most sensitive areas.
PD4: Minimising Impacts of Existing Permissions on Portland	The thrust of this policy is to achieve environmental and amenity improvements.
PD5: Restoration of Sites on Portland	This policy seeks a positive outcomes to the environment from the restoration of former workings.
HY3: Transportation of Hydrocarbons	Minerals transportation is one of the biggest negative impacts of extraction. Implementation of this policy would have a positive impact on the environment through the use of pipelines and rail haulage instead of road transport.
RS1: Restoration, Aftercare and Afteruse of Minerals Development	This policy specifically seeks to secure long term social and environmental benefits through restoration and site afteruse.
DM1: Key Criteria for Sustainable Minerals Development	Overall this policy addresses most of the sustainability objections as its aim is to ensure that minerals development is sustainable.
DM2: Managing Impacts on Amenity	This policy is focused on reducing the immediate impacts of a site's development on amenity.
DM4: Protection and Enhancement of Landscape Character and the Countryside	This policy is focused on reducing and mitigating impacts on the landscape and countryside.
DM5: Biodiversity and geological interest	This policy is focused on protecting and enhancing biodiversity and geodiversity.
DM7: The Historic Environment	This policy is focused on protecting the historic environment.

6 Assessment of Cumulative and In-combination Effects

6 Assessment of Cumulative and In-combination Effects

6.1 As well as considering the individual strategies and policies in isolation, consideration has also been given to the cumulative effects that could result from the implementation of the Minerals Core Strategy as a whole during the Plan period. This wider assessment process considered the potential for effects from other plans and programmes both within the Plan area and, where relevant, the potential for cross-boundary effects that may be felt in neighbouring counties and in Dorset as a result of development plans in adjoining counties.

What are secondary, cumulative and synergistic effects

6.2 The SEA Directive requires the assessment of effects including secondary, cumulative and synergistic effects. Secondary or indirect effects are those that are not as a direct result of the Minerals Core Strategy, but occur at a distance from the original effect or as a result of a complex pathway. Cumulative effects are those effects which, though they may be small in relation to one policy, may combine across the plan (or in association with other plans) to produce an overall effect which is more significant. Synergistic effects are those where the combined effect of a number of policies is greater than the sum of individual effects.

6.3 Where relevant this section also considers temporal aspects i.e. impacts in the short, medium and long term and whether impacts are permanent or temporary. In addition, where particular geographical areas are most likely to be affected by the implementation of the Minerals Core Strategy and other non mineral developments these have been explained.

6.4 The strategic nature of the SA process allows the combined effects to be effectively measured. As the Minerals Core Strategy is a strategy document and not site specific, the assessment of cumulative effects has taken place in two ways. Firstly, through an assessment of the five spatial strategy components set out in the Pre-Submission Draft, see Table 13 'SA of the Minerals Core Strategy Spatial Strategy', and secondly through the consideration of each SA topic.

Summary of the cumulative and in-combination effects

6.5 In general terms, the Minerals Core Strategy allows for the an appropriate level of continued extraction of a range of minerals in Dorset. Impacts on biodiversity, water, the historic environment, landscape, air quality, noise and human health resulting from future minerals extraction and the transportation of minerals are inevitable and acknowledged throughout this assessment. Although the Minerals Core Strategy does not propose to increase overall mineral development on current levels impacts are still likely to be felt in areas currently affected by minerals extraction and potentially in wider areas.

6.6 Minerals by their very nature can only be worked where they are found. In Dorset, the majority of minerals resources, particularly those extracted on a large scale are concentrated in south-east Dorset and Purbeck. These areas are also covered by significant landscape and ecology designations and urban development causing inevitable conflicts. This assessment has highlighted these areas where the likelihood of cumulative impacts is greatest

both in terms of the extraction itself and onward transportation. In addition, significant minerals extraction takes place on a number of sites within a small geographic area on Portland, giving rise to potential cumulative impacts throughout the Island.

6.7 Non mineral built development that exists and is planned in Purbeck and around Christchurch and Wimborne may also, in combination with minerals extraction in Dorset, lead to increased indirect effects on sensitive receptors and on the landsacpe and biodiversity.

6.8 The assessment has highlighted the potential for cross boundary cumulative effects with planned minerals and waste developments in Hampshire, acting in combination with minerals and non minerals developments around Christchurch and further north along the Dorset boarder. Consultation with Hampshire County Council will be ongoing in order to anticipate and control impacts of future development particularly on landscape and biodiversity interest.

6.9 It is considered that the suite of development management policies, the criteria within the specific minerals policies and the site selection criteria will provide protection for the environmental and other interests helping to mitigate against significant impacts of the Minerals Core Strategy.

6.10 However, until specific sites are identified, assessed and included in the Minerals Site Allocations Document (MSAD), it is not possible to determine specific localised cumulative impacts. The assessment of sites for the MSAD will consider cumulative impacts through the application of Site Selection Criterion C21 which considers the potential for a site to contribute to cumulative impacts in combination with existing mineral sites and other development. The MSAD as a whole will be subject to a sustainability appraisal in order to consider potential cumulative impacts. The plan will also be subject to Conservation Regulations Assessment (CRA) to examine possible effects on European sites of the combined sites to be allocated.

Cumulative and in-combination effects of the Minerals Core Strategy Spatial Strategies

6.11 The Minerals Core Strategy Pre-Submission Draft contains 5 key spatial strategies. These have been assessed against the 16 sustainability objectives in Table 13 'SA of the Minerals Core Strategy Spatial Strategy' . It is recognised that there may be cases where the assessment of an individual strategy indicates that mineral extraction will not have significant effects (e.g. on landscape). However, where another strategy allows for development of another mineral type in close geographical proximity then the impacts generated from both strategies may act in combination to have more significant effects.

6.12 Generally the environmental objectives highlight possible tensions with the spatial strategies that aim to secure an adequate and steady supply of minerals, thereby promoting future development. This is most notable through the implementation of all strategies together on the landscape and biodiversity. However, the suite of development management policies, the specific minerals policies and the site selection criteria are expected to provide adequate protection of these interests helping to mitigate against significant impacts.

6.13 In addition, the overall level of development proposed through the strategies is considered appropriate and unlikely to exacerbate current conflicts. The existence of specific text within each policy will provide sufficient protection to the SACs, SPAs and Ramsar sites, as highlighted through the Conservation Regulations Assessment.

6.14 The assessment highlighted particular incompatibilities between the spatial strategies and sustainability objective 9, to 'conserve and safeguard minerals'. However this is inevitable given the purpose of the Minerals Core Strategy - to supply minerals. The promotion of alternative minerals is also incompatible with the strategies for the future provision of primary aggregates and Portland Stone (for aggregates purposes),although the use of alternative aggregates is encouraged through Policy RE1. Evidence shows that there will be a continued need for primary sources of aggregates throughout the plan period to maintain an adequate and supply, particularly for high quality uses. This is in addition to the contribution that recycled aggregates will make.

6.15 On the whole the Minerals Core Strategy (including all key spatial strategies) are compatible with the economic sustainability objectives. The Minerals Core Strategy will contribute to sustainable economic development through through provision of materials for construction, maintenance of traditional skills and jobs (albeit limited).

6.16 In terms of the social sustainability objectives, the assessment has generally highlighted possible tensions with the spatial strategies. Minerals extraction, by its very nature, will inevitably impact on communities living in close proximity to workings (inc noise, dust, traffic and access to the countryside). The cumulative effect of the strategies being implemented together, particularly in certain parts of Dorset, would increase impacts without careful site management and mitigation.

6.17 The strategies provide an indication as to which geographical areas are likely to suffer cumulative impacts. There is no strategic preference for the future identification of aggregates sites. However a resource area is identified from within which provision will be made. The Purbeck Stone resource covers a relatively small geographical location and the area of search reduces the areas to be affected further.

6.18 There is the potential for cumulative impacts to be felt in certain areas where the strategies for different minerals are implemented together, such as in Purbeck. In addition, other non mineral development exists and is planned within the aggregates resource area and nearby. Cumulative impacts of these developments may affect parts of Christchurch and Wimborne and there are cross boundary implications through planned minerals and waste development in Hampshire close to the Dorset border. Increased traffic congestion is a key impact that is likely to occur through the various developments and would need to be given specific consideration in consultation with the relevant authorities.

6.19 Although possible tensions are identified between a number of strategies and objectives, mineral specific policies and the general Development Management policies should ensure that the potential effects highlighted will be adequately mitigated.

Table 13 SA of the Minerals Core Strategy Spatial Strategy

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
1. To maintain, conserve and enhance biodiversity	Possible tension Extraction of minerals has the potential to cause negative impacts on biodiversity, particularly in the short term. However, the strategy states that supply will be continued unless this would result in unacceptable environmental impacts. In addition, minerals extraction can bring about opportunities for enhancement in the longer term.	Possible tension Resource areas contain designated areas, however policies ensure adequate protection of these as recommended by the CRA. Negative impacts are possible in the short term with enhancement opportunities in the longer term.	Possible tension Policies ensure adequate protection of European sites as recommended by the CRA. Strategic steer to areas of least environmental sensitivity. Negative impacts are possible in the short term with enhancement opportunities in the longer term.	Possible tension However, the area of search specifically excludes SACs and SSSIs to reduce impacts.	Compatible The shift from open cast quarrying to mining should result in reduced impacts.

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
2. To maintain, conserve and enhance geodiversity	Possible tension Some minerals may provide opportunities to enhance geodiversity. However, some extraction may have the opposite effect.	Possible tension Extraction of crushed rock could both create and impact on features of geodiversity.	Possible tension	Possible tension Extraction of stone could both create and impact on features of geodiversity.	Possible tension Mining of stone could both create and impact on features of geodiversity.
3. To maintain, conserve and enhance the landscape, including coast	Possible tension Extraction of minerals has the potential to cause negative impacts on the landscape. However, the strategy states that supply will	Possible tension Resource areas show areas where impacts of future extraction may be felt. This areas provide some protection	Possible tension Likely that extraction will continue to take place in the Dorset Area of Outstanding Natural Beauty due to need for	Possible tension Landscape was a key consideration in developing the area of search. This should minimise impacts.	Possible tension The strategy should reduce landscape impacts in comparison to the current situation. However mining may give rise to landscape impacts through

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
	be continued unless this would result in unacceptable environmental impacts.	through the exclusion of Areas of Outstanding Natural Beauty however may include other sensitive landscapes and the setting of the AONB.	the variety of grades of clay. Strategic steer to areas of least environmental sensitivity.	The strategy is that sites should be dispersed and scattered in nature and policy requires them to be in keeping with landscape character, thereby reducing impacts in the short to medium term.	the creation of the mine access and entrance.
4. To maintain, conserve and enhance the historic environment	Possible tension	Possible tension	Possible tension	Possible tension Contribution of stone for restoration of historic buildings, but potential conflict of extraction with historic features.	Compatible Contribution of stone for restoration of historic buildings.

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
5. To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way	Possible tension	Possible tension	Possible tension	N/A	N/A
6. To reduce flood risk and improve flood management	Possible tension Flood risks depend on mineral type.	Compatible Sand and gravel extraction is flood compatible development. No specific effects in relation to crushed rock. Strategy enables provision of materials for use in flood defences.	Possible tension The ball clay deposit partially coincides with flood zones 2 and 3. Extraction is unlikely to reduce flood risk or improve flood management	N/A The Purbeck Stone outcrop is not located in a flood risk zone. Working would not reduce or improve flood risk.	Compatible Strategy enables provision of materials for use in flood defences.
7. To maintain, conserve and enhance soil quality	Incompatible	Possible tension	Possible tension	Possible tension	Possible tension

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
	There is likely to be impacts on soil through any extraction activity.				Strategy reduces impacts on soil in comparison to the current situation. Mining may give rise to impacts on soil where there is a need for the creation of a new mine entrance.
8. To protect and improve air quality	Possible tension Potential for dust arisings.	Possible tension Potential for dust arisings.	Possible tension Potential for dust arisings.	Possible tension Potential for dust arisings.	Possible tension Strategy reduces impacts on air quality in comparison to the current situation.
9. To conserve and safeguard mineral resources	Compatible The strategy specifically says that safeguarding will be used to	Incompatible This objective would not safeguard minerals	Incompatible This objective would not safeguard minerals	Incompatible This objective would not safeguard minerals	Incompatible This objective would not safeguard minerals

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
	protect mineral resources.				
10. To promote the use of alternative materials	Compatible The strategy states that recycled materials contribute to a sustainable supply.	Incompatible	N/A There are no alternatives to ball clay	N/A There are no alternatives to Purbeck stone.	Incompatible
11. To promote and encourage sustainable economic growth and reduce relative poverty and deprivation	Compatible	Compatible	Compatible In the short to medium term the strategy commits to the provision of ball clay to meet demand. However beyond this, in the longer term, supply is uncertain.	Compatible	Compatible

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
12. To provide an adequate supply of minerals to meet society's needs	Compatible	Compatible	Compatible	Compatible	Compatible
13. To sustain, and where possible improve, the health and quality of life of the population	Possible tension	Possible tension	Possible tension	Possible tension	Possible tension Strategy reduces impacts amenity in comparison to the current situation. Mining may give rise to impacts on amenity where there is a need for the creation of a new mine entrance.
14. To adapt to and mitigate the impacts of climate change	Possible tension In particular this refers to the supply of energy minerals, the use of which	Possible tension	Possible tension	Possible tension	Possible tension

Sustainability Objectives	Minerals Core Strategy Pre-Submission Draft Spatial Strategy				
	i. **Providing an adequate and steady supply of minerals**	**ii. Providing a continued supply of aggregates**	**iii. Maintaining an adequate and steady supply of ball clay**	**iv. Maintaining an adequate and steady supply of Purbeck Stone from within an area of search**	**v. Encouraging a shift from surface quarrying of Portland Stone to mining**
	contributes to climate change.				
15. To enable safe access to countryside and open spaces	Possible tension	Possible tension	Possible tension	Possible tension	Possible tension Strategy reduces impacts on countryside access in comparison to the current situation.
16. To reduce the adverse effects of the transportation of minerals	Possible tension	Possible tension	Possible tension	Possible tension	Possible tension

Cumulative and in-combination effects of the implementation of the MCS by topic

6.20 Each of the twelve SA topics were considered as part of the assessment of the overall cumulative effects of the implementation of the Minerals Core Strategy as a whole. Reference is made, in the assessment, to specific development management policies within the Minerals Core Strategy where these would mitigate against identified effects and/or reference is made to related documents where relevant mitigation measures have been considered. The relevant SA objective numbers are also included for ease of reference.

Topic 1 - Climate Change and Energy (SA Objective 14)

6.21 Minerals extraction and the transportation of minerals inevitably leads to the production of greenhouse gas emissions and this is an issue that has been considered in the Sustainability Appraisal of the Minerals Core Strategy. With regards to cumulative impacts, the district of Purbeck is most likely to suffer effects due to the extraction and transportation of aggregates, ball clay and Purbeck Stone in relatively close proximity. However, none of the strategies propose to increase development above existing levels.

6.22 The extraction and processing of fossil fuels to provide power and fuel for use by the minerals industry in combination with other industries will contribute to the progressive depletion of non-renewable natural resources at a national and international level.

6.23 The restoration of minerals sites, particularly aggregates, provides some opportunities for providing flood storage capacity in the county which can help in the adaptation to climate change. However, mineral extraction can cause changes in ground water level or land instability. This may exacerbate the impacts of climate change on ground water or land instability.

Mitigation:

6.24 Policy CC1 'Preparation of Climate Change Assessments' requires major minerals proposals to be supported by an assessment of how climate change mitigation and adaption measures have been incorporated into the design and operation of the development.

6.25 Development management Policy DM1 'Key Criteria for Sustainable Minerals Development' requires minerals proposals to demonstrate the minimisation of impacts which could increase the effects of climate change and requires the avoidance or mitigation of, or compensation for, adverse impacts on the water environment and flood risk.

6.26 In addition, development management Policy DM3 'Managing the Impact of Surface Water and Ground Water Resources' requires Flood Rick Assessments for minerals proposals in areas at risk of flooding or likely to contribute to flooding elsewhere.

Topic 2 - Biodiversity and Geodiversity (SA objective 1 and 2)

6.27 Extraction of minerals inevitably has the potential to cause negative impacts on biodiversity and this is an issue that has been considered in the Sustainability Appraisal of the Minerals Core Strategy. Unless effectively managed, minerals development could potentially result in direct or indirect adverse impacts on features of biodiversity interest in the Plan area.

6.28 With regards to cumulative impacts, the district of Purbeck is likely to suffer effects due to the extraction of aggregates, ball clay and Purbeck Stone in relatively close proximity. There are extensive areas of international and national nature conservation importance and the protection of the remaining heathland and wetland is of international,national and local importance. A Conservation Regulations Assessment has been carried out in addition to the SA for this reason and as required by legislation. Policies ensure that development would not adversely affect the integrity of the designated heathlands, however there is potential for indirect effects through displacement due to pressure from mineral working. In addition other built development that exists and is planned in Purbeck in combination with minerals extraction may lead to increased indirect effects. In general, the closer a minerals development to a European site, the more likely there are to be significant effects on that site. Such effects may result from a range of factors including habitat fragmentation, loss of dispersal corridors, and indirect effects of mineral winning and processing. For example, at its closest, an adjacent mineral quarry could affect a European site if the stand-off were too close, or the angle of cut too steep, such that the part of the European site slipped into the quarry.

6.29 In addition, planned built development around Christchurch/Wimborne, the proposed North Christchurch Urban Extension, and planned minerals and waste developments in Hampshire (close to the Dorset border) may increase both direct and indirect effects on biodiversity interests in combination with the Minerals Core Strategy's strategy for the continued provision of aggregates.

6.30 Minerals extraction is only a temporary use of land and there are significant opportunities available post extraction through site restoration which can provide biodiversity enhancements such as wildlife corridors and improved heathland linkages. This can also help towards achieving the objectives of the Dorset Biodiversity Strategy.

6.31 In terms of geodiversity, effects are most likely through the extraction of Purbeck and Portland Stone, and other building stones. Extraction could both create features of geodiversity interest and impact negatively on them. Cumulative impacts may occur through ongoing extraction within relatively small areas. Mineral working may also affect the setting of the World Heritage Site, but development management policy 6 covers this.

Mitigation:

6.32 Development Management Policy DM5 'Biodiversity and Geological Interest' requires developers to fully asses the potential effects of proposals on biodiversity interests. In addition it states that minerals proposals must not adversely affect the integrity of European or Ramsar or other internationally designated sites either alone or in combination with other plans and projects. Adverse impacts should be avoided or where they cannot be the impact will be mitigated where adverse impacts cannot be avoided or adequately mitigated, compensation will result in the maintenance or enhancement of biodiversity.

6.33 Where the Conservation Regulations Assessment has highlighted possible conflicts from mineral development on any SAC, SPA or Ramsar site specific wording has been incorporated into policies to ensure that proposed development would not adversely affect their integrity. This is relevant for the provision of aggregates (Policy AS1), industrial sand, (IS1), ball clay (Policy BC1) and hydrocarbons (HY1 and HY2).

Topic 3 - Water (SA objectives 5 and 6)

6.34 Minerals development, particularly sand and gravel and ball clay extraction, will at some point affect surface and ground water resources. There will be potential for adverse impacts to water quality and water levels both within and beyond the boundaries of a site, through activities such as abstraction of water for mineral washing and processing, removal of water from areas where minerals will be worked below the water table, or the storage of fuels and other chemicals necessary for the development.

6.35 The consumption of water resources by the minerals industry would, in combination with other developments, including residential and industrial and commercial developments, contribute to an increase in the demands that are being made on the finite water resources of Dorset and the wider area. Such pressures could also have implications for the future of the habitats and species considered characteristic of the area.

6.36 Potential for specific cumulative impacts on Poole Harbour have been identified as a number of existing minerals workings, possible future mineral workings and non minerals developments occur alongside rivers running into Poole Harbour.

Mitigation:

6.37 Development Management Policy DM3 'Managing the impact on surface water and ground water resources' requires minerals proposals to demonstrate that the local water environment would be protected and where appropriate enhanced.

Topic 4 - Historic Environment (SA objective 4)

6.38 Dorset has a rich heritage of prehistoric sites, conservation areas, listed building, historic parks and gardens and scheduled monuments; many with mineral reserves and deposits within, or in close proximity to, their boundaries. Therefore the impact of development on the historic environment needs appropriate consideration and has been assessed in the Sustainability Appraisal of the Minerals Core Strategy.

6.39 Where a number of mineral sites and/or other forms of development such as housing have an effect on the same resource there is the potential for cumulative impacts. For example many mineral sites lie in close proximity to Conservation Areas, particularly within Purbeck. There are also a number of barrows and other archaeological sites in Purbeck that are protected as Scheduled Monuments and which lie close to existing minerals sites. There are many areas of archaeological significance including industrial archaeology on the Isle of Portland, some of which exist on un-worked land but many are as a result of past quarrying activities.

6.40 Minerals transportation and other forms of development can also have a cumulative impact on historic features, or their settings. Heavy lorries have the potential to cause vibration on historic buildings.

6.41 The contribution that minerals extraction makes to the distinctiveness of Dorset's built environment and landscape should also be recognised. Quarrying, particularly of building stone, is an integral part of Dorset's cultural heritage and industrial archaeology and very closely linked to the landscape quality of some parts of Dorset. Furthermore, the contribution that Dorset's stones, notably Purbeck and Portland Stone, make to both locally and nationally important listed buildings is acknowledged.

Mitigation:

6.42 Development management Policy DM7 'The Historic Environment' aims to ensure that the historic environment is afforded the appropriate level of conservation and enhancement.

6.43 The Purbeck Stone area of search (Policy PK2) was developed based on an assessment of landscape and visual sensitivity, with specific consideration of archaeological sites and their settings. This approach assists in reducing the potential for any adverse impacts at the plan making stage.

Topic 5 - Landscape (SA objective A3)

6.44 The Dorset landscape is of extremely high value and is integral to the overall character and identity of the county. Extraction of minerals inevitably has the potential to cause negative impacts on the landscape and this is an issue that has been considered in the Sustainability Appraisal of the Minerals Core Strategy.

6.45 Any alteration to areas of significant landscape value, through the introduction of discordant features as a result of minerals extraction, will have the potential for both short and long distance visual impacts. This will contribute to a wider process of landscape change that arises from growing development pressures in Dorset and the wider area (i.e. demand for land for housing and commercial and industrial development).

6.46 For geological reasons there is likely to be a dominance of mineral working in some areas of specific minerals resources which are distinct Landscape Character Types with the potential for significant cumulative impacts. Many minerals deposits for example lie within or close to the Dorset Area of Outstanding Natural Beauty and the Heritage Coast. Due to its national and international importance and contribution to the economy it is appropriate to extract ball clay from within the AONB, however consideration of landscape impacts and mitigation will be key to the success of such applications, paying particular regard to cumulative impacts. The Purbeck Stone resource is entirely contained within the Dorset AONB. Its extraction contributes to the local economy and to Dorset's unique sense of place and again will continue within acceptable environmental limits. Small scale quarrying is recognised to be part of the landscape character in the Dorset AONB landscape character assessment [(6)].

6 Conserving Character: Landscape Character Assessment & Management Guidance for the Dorset AONB (Dorset AONB 2008)

6.47 The district of Purbeck is likely to suffer effects due to the extraction of aggregates, ball clay and Purbeck Stone and oil and gas in relatively close proximity. In addition other built development that exists and is planned in Purbeck in combination with minerals extraction may lead to increased cumulative impacts. The number of sites and volume of aggregates and dimension stone extraction in a small geographical location causes cumulative impacts on the landscape. As previously mentioned there is also the potential for cumulative impacts from sand and gravel working and other planned developments in East Dorset and Christchurch due to the proposed North Christchurch Urban Extension

6.48 On Portland, extensive mineral working within a relatively small space and a lack of restoration has an impact on the landscape. Whilst there is potential for further adverse cumulative impact on the landscape as a result of the strategy, namely through the creation of new mine entrances, the strategy has been developed specifically to result in an overall reduction in the landscape and visual impact of mineral working on the island.

6.49 Cross boundary issues related to landscape may arise when potential minerals development sites are close to the boundaries of neighbouring authorities. This is of particular relevance to minerals development on the Dorset/Hampshire boundary.

6.50 Restoration, if not well planned, can also cause harm by creating landscapes with different characters and features. This is particularly relevant to sand and gravel extraction in river valleys. Well planned restoration can provide benefits and enhancements, for example there is the opportunity to bring about positive landscape change in line with the emerging South East Dorset Green Infrastructure Strategy and the creation of multi-functional landscapes.

Mitigation:

6.51 Development Management Policy DM4 'Protection and Enhancement of Landscape Character and the Countryside' ensures that provisions are in place to protect and enhance designated landscapes and their setting and that the importance of non-statutory designations are also considered. Adverse impacts should be avoided. Where this is not possible, adverse impacts will be mitigated and where adverse impacts cannot be avoided or adequately mitigated, compensation will be required to provide environmental enhancements to offset the residual landscape and visual impact.

6.52 Areas of Least Environmental Sensitivity have been identified within the ball clay bearing area, through a landscape and ecology assessment [7]. These areas are seen as an important starting point for the industry to investigate further. It is suggested that sites in these general locations are more likely to be environmentally acceptable.

6.53 The Purbeck Stone area of search (Policy PK2) was developed based on an assessment of landscape and visual sensitivity [8]. This approach assists in reducing the potential for any adverse impacts at the plan making stage. Furthermore, the intention that individual sites will be identified as opposed to preferred areas within which to concentrate

7 Background Paper 6: Ball Clay Landscape and Ecology Impact Assessment (2011)
8 Background Paper 8: Purbeck Stone Resource Area Landscape & Visual Sensitivity Study (DCC 2011)

sites has benefits for the landscape. An additional landscape assessment [9] established that this approach presents the most effective opportunities for landscape and visual mitigation during the operation of the sites, and the greatest benefits for their restoration.

6.54 With regards to the extraction of Portland Stone, the strategy and Policy PD1 'Underground Mining and High Wall Extraction of Portland Stone' aims to address some of the adverse impacts of quarrying including on the landscape through enabling mining as an alternative to surface quarrying. Additionally, Policy PD2 only permits further surface quarrying where there would be a net environmental benefit, through for example agreement not to quarry a sensitive area located within the old 1951 permission. This is due to recognition that further surface working beyond the 1951 permitted area would result in a negative cumulative impact on the island's landscape character [10].

6.55 Opportunities also exist for post-restoration enhancement of local landscapes. Policy RS1 'Restoration, Aftercare and Afteruse of Minerals Development' requires proposals to have regard to the Landscape Management Guidelines [11]. Proposals should also demonstrate how the proposed after-use will be compatible with the wider context, in terms of the landscape character.

Topic 6 - Air Quality and Noise (SA objective 8)

6.56 Extraction of minerals inevitably has the potential to cause negative impacts through the production of dust and noise. These are issues that have been considered through the Sustainability Appraisal of the Minerals Core Strategy. Increased levels of atmospheric pollution have the potential to reduce air quality, with indirect negative effects on the wider environment including human health, biodiversity and the water environment.

6.57 Dorset generally has good air quality and with environmental improvements in technology this is expected to improve. There are three Air Quality Management Areas (AQMAs) in the Plan area. It is unlikely that minerals extraction will have any direct impacts on these, however impacts are more likely to come from HGV traffic through or near to the AQMAs, particularly ball clay movements to the west through Chideock village.

6.58 The quality of many of Dorset's communities, habitats and landscapes are dependent on relatively high levels of tranquillity, which inevitably may be threatened by mineral working and transportation. Impacts may arise from surface mineral working from engines used to power plant; the tipping and processing of material; vehicle movements and reversing bleepers; the erection, maintenance and movement of plant; and blasting (on Portland).

6.59 Noise and dust arises from a wide range of sources, including industrial and commercial operations, residential properties and traffic. The activities of the minerals industry will contribute to noise levels and air quality in combination with every other part of the economy, which in areas with higher concentrations of population may result in higher levels of ambient noise and/or deterioration of the air quality.

9 Background Paper 9: Purbeck Stone Extraction in the Dorset Area of Outstanding Natural Beauty (Dorset AONB, 2011)
10 Background Paper 11: Isle of Portland Landscape Assessment (DCC 2010, amended 2011)
11 See Background Paper 16: Landscape Management Guidelines

6.60 Specifically, the district of Purbeck may suffer effects on air quality and noise due to the extraction and transportation of aggregates, ball clay and Purbeck stone in relatively close proximity. Quarrying activities may also cause impacts on the tranquillity of the Dorset AONB. Portland may also suffer cumulative effects due to the number of minerals sites in close proximity to each other and to sensitive receptors such as housing or schools.

Mitigation:

6.61 Impacts on AQMAs are most likely to be addressed through relevant AQMA action plans and other traffic management strategies. However, possible impacts have been taken into consideration during the preparation of the Minerals Core Strategy and will continue to be a consideration when specific sites are assessed for inclusion in the Minerals Sites Allocations Document. Site Selection Criterion C16 deals with impacts on Air Quality Management Areas (AQMAs).

6.62 Site Selection Criterion C18 deals with impacts on Sensitive Human Receptors which includes consideration of noise and possible mitigation. In addition, Policy DM2 seeks to ensure that the potential adverse impacts associated with minerals development are managed in order to protect amenity and the environment this includes dust, emission to air from quarry traffic and noise.

6.63 Other policies in the Minerals Core Strategy also deal with sustainable minerals transportation, which where possible will have an impact on reducing the adverse impacts associated with the transportation of minerals in Dorset and beyond.

Topic 7 - Minerals (SA objectives 9, 10 and 12)

6.64 The extraction of minerals, by its very nature, has the potential to cause negative impacts where extraction takes place near to sensitive receptors. The various topics within this section consider the likely cumulative impacts of each. Impacts associated with minerals extraction are generally of a temporary nature but impacts can be felt over a relatively long period, particularly with stone extraction and deep sand and gravel extraction where there are little opportunities for progressive working and restoration.

6.65 The consumption of primary mineral resources on a site by site basis will contribute to the progressive depletion of the remaining reserves of minerals in Dorset and nearby counties. There is likely to be a concentration of extraction and therefore depletion in some area such as Purbeck and Portland and more widely within the aggregate resource area.

Mitigation:

6.66 All the development management policies and detailed criteria within the mineral specific policies will help to mitigate against the negative impacts associated with minerals extraction.

6.67 As the minerals can only be worked where they are found mitigation of the depletion of minerals resources can be achieved to some extent by the fact that the Plan intends to control the rate of extraction to ensure an adequate and steady supply. Levels of provision set out in the Minerals Core Strategy are based on evidence and technical knowledge of the

available resource, permitted reserves, past and future need assessments. In addition, for some minerals there are specific environmental factors constraining the level of extraction and therefore offering benefits to mineral resource conservation.

6.68 The Minerals Core Strategy contains policies on safeguarding minerals resources from non-minerals development within Mineral Safeguarding Areas. This is important to avoid sterilisation of important minerals resources.

6.69 Policy RE1 'Production of Recycled Aggregates' is also relevant as an increased supply of recycled aggregate, supported through this policy, reduces reliance on primary won aggregate. The Minerals Core Strategy seeks to ensure a steady, annual increase in the production of recycled aggregates, particularly of products of a high specification.

Topic 8 - Transport (SA objective 14 and 16)

6.70 Minerals are usually transported by road which contributes to congestion and leads to adverse environmental impacts such as noise, air pollution, vibration and dust. The number of daily HGV movements associated with minerals extraction forms just a small proportion of the overall number of daily HGV movements across Dorset.

6.71 Cumulative impacts will result from existing mineral sites, planned minerals sites and other developments operating concurrently. Where a number of sites are operational at the same time the volumes of HGV traffic could result in significant adverse effects and highway safety issues. This is particularly likely to be an issue as the majority of the minerals extraction sites in Dorset are concentrated in the south east of the county, with the effect that the A31, A350 and A35 are the most heavily used routes in terms of HGV use.

6.72 The capacity of the main truck road (A31) in the south east is stated by the Highways Agency to be incapable of supporting additional traffic. This has obvious implications for the siting of new mineral workings, given that HGV movements would be required along these routes as a result of future mineral sites. There are however no proposals to increase minerals extraction above exiting levels.

6.73 Areas likely to have the potential for cumulative issues related to traffic and transportation are Christchurch, Wimborne and into Hampshire. These areas already suffer congestion which could be increased by any new minerals development and for geological reasons minerals sites are likely to come forward in this area. Additionally, minerals transportation causes cumulative effects on the Isle of Portland, where a number of minerals developments take place at once and there is a poor road network in existence, with only one route off the island available for the onward transportation of stone to market.

6.74 In addition, the rural nature of the road network in Purbeck where aggregates, ball clay and Purbeck Stone are extracted in close proximity is of concern in terms of the cumulative impacts of existing and planned developments.

6.75 Planned minerals and waste development in Hampshire close to the Dorset border may add to cross boundary cumulative impacts of minerals transportation. There are unlikely to be any further significant cumulative effects resulting from the implementation of other adjoining authorities development plan documents.

Mitigation:

6.76 A number of policies contained within the Minerals Core Strategy promote sustainable transportation, highlighting the importance of this issue. Policy DM8 'Transport and Minerals Development' is the key policy dealing with this issue. It states that sustainable transportation should be used where possible and practical, including through minimising distance travelled by road and maximising the use of transport means such as rail, water, pipelines or conveyor belts to transport minerals where practicable and environmentally acceptable. The policy also seeks to minimise the impacts of road transportation from minerals proposals.

6.77 Policy CC1 'Preparation of a Climate Change Assessment' ensures that applications demonstrate how emissions generated from traffic will be minimised. Policy BC2 'Ball Clay Transportation' expects the industry to consider the use of alternative means of transport of ball clay both locally and for onward distribution where adverse impacts arising from ball transportation have been identified. PK2 'Considerations for Purbeck Stone Proposals' allows for applications to be granted where there would not be unacceptable impacts on the highway network and neighbouring properties arising from transporting stone from the quarry to the service area. HY2 'Proposals for Production Facilities and Ancillary Development' states that applications should ensure that extraction, processing, dispatch and transport facilities are sited, designed and operated to minimise environmental and amenity impacts and provide proportionate environmental enhancements. Policy HY3 'Transportation of Hydrocarbons' ensures developments use pipeline or rail haulage, where feasible.

Topic 9 - Economic Development and Employment (SA objective 10)

6.78 Minerals make an important contribution to our society. Dorset has a wide range of mineral types required locally, nationally and even internationally. Minerals extracted in Dorset provide the material needed for the development of the economy, through the construction of homes, buildings and hard infrastructure, as well as through their use in the manufacture of products and their use in fuels. The extractive industry also provides economic benefits to the County, enhancing local economic development. It offers employment both directly for those working in the quarries and mines or the transport system and indirectly in other industries in the supply chain or that support the workforce. The employment opportunities from mineral sites are particularly important in rural areas where there are limited skilled jobs.

6.79 Minerals extraction and the transportation of minerals may lead to negative impacts on other businesses, particularly the tourism industry. With regards to cumulative impacts, the district of Purbeck is most likely to suffer effects due to the extraction and transportation of aggregates, ball clay and Purbeck stone in relatively close proximity and within areas popular with visiting tourists.

Mitigation:

6.80 Various policies throughout the plan encourage extraction subject to environmental constraints and safeguards. These policies will ensure the continued supply of minerals in Dorset needed for the economy, within acceptable environmental limits.

6.81 Site Selection Criterion C17 deals with impacts on economic development. It requires an assessment of the economic contribution of minerals proposals in terms of the level of employment that would be created. Consideration will also be given to whether the proposed site would have a negative impact on the local economy of the vicinity.

6.82 Policy RS1 'Restoration, Aftercare and Afteruse of Minerals' encourages a range of after-use proposals which may provide benefits. Restoration can provide positive long term impacts on the economy and in some cases employment through opportunities for inward investment associated with recreation and tourism although it is accepted that opportunities may be limited.

Topic 10 - Soil and Land (SA objective 7)

6.83 Soil is a valuable and finite resource and inevitably will be affected by minerals extraction. This has been considered in the Sustainability Appraisal of the Minerals Core Strategy.

6.84 Minerals extraction and other developments are likely to increase negative impacts on soils in Dorset with the loss or damage of soils and sealing with impermeable construction materials. This will prevent water entering into the soil, can cause increased run off and may increase the chance of soil erosion and the likelihood of flooding.

6.85 Impacts on soil are however unlikely to be of overriding importance, and are often of a temporary nature (short to medium term). In many cases, it is possible to store soils and to reinstate sites to their pre mineral extraction use. Progressive restoration to agricultural land is common for sand and gravel sites and this helps to minimise impacts on best and most versatile land.

Mitigation:

6.86 Policy DM1 'Key Criteria for Sustainable Minerals Development' seeks the protection of soil resources throughout the life of the development and preference is given to to the development of poorer quality land over higher quality or best and most versatile land. Policy RS1 'Restoration, Aftercare and Afteruse of Minerals Development' includes a requirement for proposals to demonstrate that measures will be taken to ensure that soil quality will be adequately protected and maintained throughout the life of the development and, in particular, during stripping, storage and management of soils, subsoils and overburden arisings as a result of site operations.

6.87 Site Selection Criterion C15 deals with impacts on existing soils or land. It requires consideration of potential impacts on a combination of land use, designations and underlying soil type/quality.

Topic 11 - Waste (SA objective 9 and 10)

6.88 Minerals sites inevitably generate waste material, much of which is re-used on site for restoration purposes and so its availability is of vital importance. Alternatively, there is the potential for inert waste materials arising from the extraction of primary aggregate to be processed and sold for use by the construction sector as secondary aggregate.

6.89 The overburden at ball clay pits can include large amounts of sand which has the potential to be sold as construction aggregate. Working more than one mineral product from a single pit has its benefits by reducing the total amount of ground opened for mineral extraction at any one time, potentially maximising efficiency, minimising waste material and reducing the need for primary material extracted elsewhere. Taking this material off site for sale does have negative impacts. It leads to a reduction in the amount of material available for restoration, possibly affecting final landforms and if stockpiled it may have landscape impacts. It also results in an increase in the volume of HGV traffic on the surrounding road network.

6.90 The extraction of Purbeck Stone gives rise to a large percentage of waste material, through the occurrence of low grade stone unsuitable for use as dimension stone and through processing. This material is important for use in the restoration of sites to an appropriate landform. The industry has some aspiration to use surplus waste material for the non-traditional use of construction aggregate, through crushing. There is the potential for negative impacts most notably through noise and increased traffic movements. The plan however allows for this is certain circumstances as this has economic benefits and enables best use of the resource.

6.91 Mine voids, as a result of Portland Stone extraction, have the potential to be backfilled with the waste rock generated from the mining operation. This is encouraged as it reduces the impact of HGV movements on Portland. In addition, waste dimension stone can also be crushed for use as an aggregate. As with Purbeck Stone, this does have the potential for negative impacts on the environment, however in many cases it is considered the best and most sustainable use of the material.

6.92 The production of recycled aggregate from extraction wastes will, in combination with a range of other extraction and manufacturing industries contribute to the safeguarding of the built environment and the jobs of people working in the construction sector. In the contrary, the production and transportation of recycled aggregates inevitably has the potential to cause negative impacts on nearby sensitive receptors. Cumulative impacts may also arise with other developments, particularly when aggregates recycling takes place in industrial locations.

Mitigation:

6.93 The MCS aims to facilitate an increased supply of recycled aggregate in order to reduce reliance on primary aggregates. There are obvious advantages if the demand for primary extraction is reduced but recycling activities can give rise to negative impacts often of a permanent nature. Policy RE1 provides policy guidance on mitigating the impacts of aggregates recycling sites.

6.94 Policy DM1 includes a criterion to ensure that proposals minimise mineral waste generated on the site.

6.95 Policy PK4 restricts the crushing of Purbeck Stone to a suitable level in order to minimise any impacts of the activity in this sensitive area and to ensure sufficient material is available for restoration.

Topic 12 - Population and Human Health (SA objectives 13, 14 and 15)

6.96 The operation of minerals sites has the potential to generate impacts that can cause negative impacts on the health and/or well-being of people living and working in close proximity to the sites. Increased traffic and the operation of machinery can create airborne emissions and can also impact road safety as well as resulting in noise, light pollution and vibration.

6.97 In combination the development of sites formally used for recreational purposes and possible footpath diversions could have direct implications for local residents who regularly use this area for recreation. These impacts can be minimised through phased site development, timely restoration back to recreational purposes and/or the provision of alternative areas for recreation.

6.98 In addition, it is possible that the direct and indirect effects forecast for the Plan area (air quality, noise, water quality etc.) could be felt in the communities of the neighbouring authority of Hampshire.

6.99 The cumulative effects of all the extraction sites together could have positive, albeit relatively limited, effects on employment opportunities in Dorset. This may have a positive impact on quality of life.

Mitigation:

6.100 There are a number of mitigation measures available to address the potential impacts of mineral extraction facilities on human health. Policy DM2 'Managing Impacts on Amenity' ensures that proposed developments demonstrate that any potential impacts are avoided and/or adequately mitigated to an acceptable level. Potential mitigation measures that could be considered include; the incorporation of buffers between residents and mineral workings, screening bunds, natural tree screening, reduced hours of working, the use of water bowsers and routing agreements.

6.101 Where possible, phased extraction of minerals sites may significantly help to reduce any cumulative effects, minimising the period of operations and therefore impacts on settlements and residential amenity. This is encouraged through policy Policy RS1 'Restoration, Aftercare and Afteruse of Minerals'.

7 Health Impact Assessment

7 Health Impact Assessment

7.1 Health Impact Assessment (HIA) is intended to help inform decisions by predicting the health consequences if a proposal or policy is implemented. It will also help officers understand in what ways planning could contribute to better health.

7.2 Minerals extraction, transportation and afteruses have the potential to have implications for the health and well being of people and Health Impact Assessment is therefore necessary in order to anticipate and mitigate any health consequences. HIA is also necessary to ensure that any potential benefits that may arise (for instance from the restoration of mineral sites) are also identified.

7.3 In making decisions, officers have to balance numerous areas including financial, political and environmental, as well as health, and frequently have to trade off gain in one area against gain in another. HIA has enabled the health gains and losses with different options and policies of the MCS to be fully appreciated.

7.4 HIA can also contribute to health equity by identifying the different groups within the population who will experience health gains and losses resulting from each policy so that decision makers can see how the proposals affect health inequality and aim to choose the most equitable option and policy.

7.5 Health Impact Assessment has been integrated into the SA/SEA process. The health impacts and their significance associated with the options and subsequent policies in the MCS have been considered at each assessment stage. Where appropriate recommendations/mitigation have been set out to ensure health impacts are reduced and where possible to provide enhancement of good health consequences.

7.6 Public consultation throughout the preparation of the MCS has raised local concerns about the potential for mineral extraction and associated traffic to impact on health and more general quality of life and well being in those areas likely to be effected by future extraction. This confirmed the importance of integrating HIA within the SA/SEA.

Health Impacts of the Minerals Core Strategy Options

7.7 The development of the MCS began with consideration of issues and alternative options (during 2007). Sustainability appraisal was undertaken of these options (see appendix D), which together with stakeholder consultation, led the decision making process and development of policies.

7.8 The 2007 Sustainability Appraisal Scoping report contained fifteen sustainability objectives of which two were directly relevant to the assessment of health impacts; SA objectives 9: ‘Improve health’ and 10: ‘Reduce noise and dust and improve quality of life’.

7.9 Many of the alternative options considered for the particular issues provided little or no differences in terms of their impact on health and quality of life. However, some health related impacts did have an impact on decision making. For example, the use of Purbeck Stone for non-traditional uses highlighted potential negative effects on health and the

alternative option of restricting the use of Purbeck Stone was taken forward. The strategy to encourage underground mining as an alternative to surface quarrying for Portland Stone was supported by the results of the health related sustainability objectives.

Health issues resulting from the Implementation of the Minerals Core Strategy

7.10 In 2010 the Scoping Report was revised. The new report provided updated baseline information and a revised set of objectives and indicators to reflect the latest guidance and policy. Topic Paper 12 relates to Population and Human Health and SA objective 13 'To sustain and where possible improve the health and quality of life of the population' is where the subsequent assessment specifically considered health impacts.

7.11 Concentrating on the sustainability appraisal of the Pre-Submission Draft (see appendix G), the key health issues raised can be summarised as follows:

1. Policies with the aim of maintaining a supply of minerals (inc recycled aggregates) have inevitably highlighted negative impacts on the health and well being of local communities/amenity through the generation of noise, dust emissions, traffic generation and possible increased stress (inc. AS1, AS4, AS5, RE1, BC1, PK1, PK2, PK5, PD1, BS1, HY1, HY2, HY5, IS1).

2. Mineral specific development management style/criteria-based policies and the more general suite of development management policies aim to minimise and mitigate possible impacts to a satisfactory level (inc. PK2, PK3, PK4, PK5, PD2, PD4, HY1, and DM policies)

3. Assessments have also acknowledged the possibility for cumulative impacts. This is particularly where a number of mineral types are concentrated in the same geographical area and existing and future extraction is likely to have cumulative impacts on particular communities. (See 6 'Assessment of Cumulative and In-combination Effects' for further detail on which areas within Dorset and in adjoining authorities most likely to be affected). In addition, rural communities are more likely to be affected by minerals extraction than urban communities. This is because mineral extraction inevitably cannot take place where there is built development on the ground surface. It should be noted that there could be impacts on residential areas adjoining or in close proximity to the resource areas, therefore on the edge of the combination. Safeguarding policies should ensure that non mineral development does not encroach upon existing minerals operations, reducing potential health impacts.

4. Conversely polices that promote future minerals extraction ensure continued local employment and contribute to economic growth. Both of which are important in sustaining quality of life, particularly rural communities where there are limited employment opportunities elsewhere. In addition, policies which increase security of energy supply (such as HY1, HY2 and HY5) will sustain the quality of life of the wider population (albeit indirectly).

1. The implementation of overarching strategic policy CC1 will contribute to the reduction of harmful effects of climate change and therefore there may be benefits on the health and quality of life of the population.

2. Policy DM2 ‘Managing the Impacts of Minerals Development’ is particularly relevant to minimising the impacts of extraction on health. This policy seeks to protect local amenity and quality of life through the avoidance and/or mitigation of noise, dust, air emissions, lighting, visual impacts and vibrations. Policy DM8 'Transport and Minerals Development' is also relevant as it requires an assessment of minerals development proposals to ensure, for example, a safe access is provided and other highway improvements necessary to mitigate or compensate any adverse impacts linked to safety.

7.12 HIA What happens next?

7.13 The Minerals Core Strategy is by definition a broad-based document and will be developed through the identification of specific sites in the Minerals Site Allocations Document (MSAD). This report has highlighted in general terms the likely impacts in relation to health and general geographical areas where these issues appear to be especially relevant. As the MSAD develops it may be appropriate to carry out further focused analysis and engagement on the detail of specific issues where this HIA indicates broad potential impacts on the community.

7.14 The Minerals Core Strategy contains a list of sites selection criteria which will be used as a means of testing the suitability of individual mineral sites in a consistent manner. A number of the criteria are linked to health. Site selection criteria 18 specifically considers the impacts of proposals on sensitive human receptors and criteria 19 considers impacts on exiting settlements

8 Mitigation

8 Mitigation

8.1 Consideration has been given to mitigation measures throughout the process (Draft MCS, Revised Draft MCS and Pre-Submission Draft). Changes have been recommended to the wording of specific policies following the sustainability appraisal in order to improve policies and mitigate against negative effects through implementation.

8.2 Table 14 ' Mitigation' summarises where the sustainability appraisal highlighted a need for mitigation and where detailed changes to the policy wording were recommended in order to make the policy more effective. These recommendations have been incorporated as detailed below.

Table 14 Mitigation

Stage of the document's preparation/ Policy Reference	Suggested Mitigation	Has the mitigation led to a change to the policy	Any other comments/observations
Draft MCS			
Proposed Policy BC1: Provision of Ball Clay	Recommended that 'and steady' is removed from the policy. The term 'adequate' in the policy will enable fluctuations in demand to be reflected in the level of releases, so the need to maintain a 'steady supply' is not appropriate.	Change made and incorporated in the Draft MCS consultation document	Further consideration resulting from consultation responses concluded that text 'and steady' should be retained. This would reflect national policy. The Revised Draft MCS and Pre-Submission Draft contained the original wording.
Proposed Policy BC2: Extraction of Ball Clay within the AONB	The term 'least sensitive' areas should be defined in the supporting text.	N/A	This policy developed significantly through consultation with the industry leading to a different approach in the Revised Draft MCS and the development of areas of search, based on landscape and ecological considerations. These then developed into 'Areas of Least Environmental Sensitivity' in the Pre-Submission Draft.

Stage of the document's preparation/ Policy Reference	Suggested Mitigation	Has the mitigation led to a change to the policy	Any other comments/observations
Proposed Policy PD3: Minimising Environmental Impacts	The thrust of the policy should be to 'secure' rather than 'encourage' the environmental improvements set out.	Yes	Various amendments were made to this policy in the Draft MCS which were taken forward to the Revised Draft MCS and the Pre-Submission Draft MCS.
Proposed Policy BS2: Criteria for Assessing Building Stone Quarries	The third criterion of the policy should explicitly address landscape impacts.	Yes	Reference to landscape impacts was incorporated into Policy BS2 in the Draft MCS. This was then taken forward to the Revised Draft MCS and the Pre-Submission Draft.
Proposed Policy RS2: Restoration, aftercare & afteruse of minerals development	Reference to geodiversity should be made.	Yes	Reference to geodiversity incorporated into Policy RS2 in the Draft MCS. This was then taken forward to the Revised Draft MCS and the Pre-Submission Draft.
Pre-Submission Draft			
Policy BC1: Provision of Ball Clay	Due to the potential for significant impacts on the landscape, reference is needed in criteria d to landscape enhancement through restoration.	Yes	This policy in the Pre-Submission Draft contained reference to landscape enhancement through restoration .
Policy BC1: Provision of Ball Clay	Include more explicit reference to where these areas can be found i.e. fig x	Yes	This policy contained this reference in the Pre-Submission Draft.
	Amend criterion 'd' to read: "existing characteristic landscape	Yes	The policy in the Pre-Submission Draft contained this suggested

Stage of the document's preparation/ Policy Reference	Suggested Mitigation	Has the mitigation led to a change to the policy	Any other comments/observations
Policy PK2: Considerations for Purbeck Stone Proposals	features, such as stone walls, are retained in situ unless the stone is incapable of being viably worked without disturbance to such features. Where disturbance is unavoidable proposals must include measures to minimise disturbance and/or mitigate the impact to an acceptable degree."		wording to ensure any impacts on landscape features are mitigated to an acceptable degree.
Policy PD1: Underground Mining and High Wall Extraction of Portland Stone	Change wording of criterion (b) to: “Any adverse impacts from the creation of a mine entrance can be avoided or mitigated to an acceptable level.”	Yes	The policy in the Pre-Submission Draft contained the suggested wording to ensure landscape protection from mine creation.
Policy PD1: Underground Mining and High Wall Extraction of Portland Stone	Add to criterion (e): “and surface areas are restored for a beneficial afteruse.”	Yes	The policy in the Pre-Submission Draft contained the suggested wording to ensure consideration of surface areas in restoration.
Policy PD5: Restoration of Sites on Portland	Add an additional criterion: (g) Reinstatement of agricultural land and facilitation of agricultural afteruse where appropriate.	Yes	The policy in the Pre-Submission Draft includes this suggested wording to ensure that restoration to agricultural land is secured on Portland where appropriate.

Stage of the document's preparation/ Policy Reference	Suggested Mitigation	Has the mitigation led to a change to the policy	Any other comments/observations
Policy HY3: Transportation of Hydrocarbons	Include reference to highway safety as well as environmental impact, where road transport is the only feasible option.	Yes	The policy in the Pre-Submission Draft states that road transportation of hydrocarbons must not give rise to unacceptable impacts on highway safety.
Policy DM1: Key Criteria for Sustainable Minerals Development	Remove reference to international/nationally important landscapes so that criterion 3 applies more generally to all landscape types	Yes	The policy in the Pre-Submission Draft seeks the protection and enhancement of landscape. This includes all landscapes and is not restricted to international/nationally designated areas.
Policy DM2: Managing the Impacts of Minerals Development	Change the title of the policy to refer to amenity to clarify the policies intention “Managing Impacts on Amenity”	Yes	The title of this policy is amended to make specific reference to 'Amenity' in the Pre-Submission Draft.
Policy DM7: The Historic Environment	Remove reference to *significant* heritage assets.	Yes	The policy in the Pre-Submission Draft ensures the conservation/enhancement of heritage assets.
Policy DM8: Transport and Minerals Development	An additional criterion is needed to ensure proposals demonstrate that a safe access to the proposed site will be provided.	Yes	The policy in the Pre-Submission Draft included an additional criterion to ensure "a safe access to the proposed site will be provided".
Policy RS1: Restoration, Aftercare & Afteruse of Minerals development	Criterion d should be more positive in terms of maximising the successful adoption of the proposed afteruse.	Yes	The policy in the Pre-Submission Draft included a criterion which aims to maximise potential afteruses of mineral sites.

9 Monitoring

9 Monitoring

9.1 The SEA Directive requires monitoring of the significant environmental effects of the plan, in order to identify unforeseen adverse effects and to enable remedial actions to be taken. This chapter of the report therefore sets out the proposals for monitoring the implementation of the MCS, essentially in terms of significant effects.

9.2 The key significant effects that have been identified, through this report, from the implementation of the Minerals Core Strategy are likely to be linked to the impacts on amenity, landscape, biodiversity and minerals related transportation. Monitoring the consistency with related development management policies should provide the necessary monitoring and should allow for essential mitigation to be build into future proposals.

9.3 Monitoring already plays an important role in the performance management of the minerals planning process in Dorset. The Annual Monitoring Report (AMR) forms part of the framework of development plan documents and provides the means to assess, the implementation of the local development scheme and, through a series of indicators, the extent to which policies in adopted plans are being successfully implemented.

9.4 The Minerals Core Strategy Pre-Submission Draft contains a monitoring framework (reproduced below). The framework contains a set of indicators and targets that have been developed to allow direct and indirect effects of the plans to be monitored. The framework incorporates indicators for the policies that have potential significant effects or uncertainties/risks as identified in Chapter 5 of this report, these have been highlighted in bold below.

9.5 Monitoring the identified indicators will also enable gaps in the existing information to be filled providing a better impact prediction basis for future appraisals and revisions of the strategy.

Table 15 Core Strategy Monitoring Framework

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
The Strategy for Minerals Provision			
SS1: Identification of Sites in the Minerals Site Allocations Document			
Permission granted for a non-allocated site	All permissions consistent with this policy with permissions being for sites allocated within the Minerals Site Allocations Document wherever possible	Any approval not consistent with this policy	This policy requires new sites to be bought forward by the minerals industry/ landowners for appraisal and those sites being considered

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
			acceptable for inclusion in the Minerals Site Allocations Document (MSAD).
Climate Change			
CC1 - Preparation of Climate Change Assessments			
Applications accepted without a comprehensive Climate Change Assessment Applications where mitigation is incorporated into the scheme Conditions requiring mitigation measures	All major applications to be supported by a climate change assessment	Any approval not consistent with this policy Should applications not include climate change mitigation measures, where these are appropriate, discussions will be undertaken with Development Management (DM) officers to consider the reasons why and any potential issues this raises with the implementation of policy.	Where changes to national policy on climate change result in the Plan conflicting with this policy there would be a need for review.
The Overall Strategy for Minerals Provision			
RE1 - Production of Recycled Aggregates			
Number of applications for recycled aggregate facilities approved or refused	Increase the production of recycled aggregate, in order to reduce the need for primary aggregate	If no applications for new recycling operations emerge this policy will need reviewing. The	In the past it has been difficult to collect and therefore monitor recycled material with the

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Amount of recycled aggregate produced, as a percentage of overall aggregate production/sales	Improved collection of recycling figures	MPAs may need to be proactive and identify specific sites	reliance on ad hoc local surveys of the waste industry Identification of site specific allocations relies on the minerals and waste industry bringing forward sites for appraisal.
AS1 - Provision of Sand and Gravel			
Total quantity of sand and gravel as permitted reserves **Total quantity of sand and gravel identified within the Minerals Site Allocations Document** **Actual sales/production of sand and gravel annually**	**To identify sufficient sites within the MSAD to deliver production at a level of 15.04 million tonnes (average of 1.78 million tonnes per annum) of sand and gravel per annum**	**If it becomes clear that it will not be possible to meet the level of provision at an acceptable environmental cost, from within the resource areas, this policy will need revisiting.** **If the level of sales consistently exceeds the level of provision further sites may be needed and/or the reliance on the criteria and policies in the Minerals Core Strategy.**	**Implementation during the early part of the plan period is dependant on existing permitted sites continuing to be worked to their full extent.** **As sites are exhausted this policy will require new sites to be identified. This relies upon the minerals industry and landowners bringing forward sites for appraisal.**
AS2 - Landbank Provision			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Level of permitted reserves of each material and current landbank figure	Maintenance of a 7 year landbank through mineral permissions	If it is clear that applications are not being granted then the size of the landbank will fall and the policy may need revising.	Relies on the minerals industry and landowners bringing applications forward.
AS3 - Crushed Rock			
Whether or not any new sites for crushed rock are permitted Actual sales/production of crushed rock annually	No permissions granted for the processing and production of crushed rock	Landbank of less than 10 years	A landbank of less than 10 years would identify the need for additional supply of crushed rock and a review of policy.
AS4 - Wharves and Depots			
Permissions for other forms of development at existing rail depots and wharfs which would prevent or prejudice the current use - application of safeguarding policy New rail depots and aggregate wharves, and the expansion and/or modernisation of existing sites.	Establishment of new wharf or depot sites No net loss of land at existing wharves and depots No net decreases in percentage share transported by rail/water	If new information identified the need for a wharf or depot there may be the need to review the policy and consider more proactive policy guidance and the identification of site specific allocations	Proximity of minerals workings to transport infrastructure, feasibility of moving minerals by rail/water due to location of markets may hinder opportunities. In addition, identification of potential sites will rely on landowners and transport organisations bringing forward sites.
AS5 - Borrow Pits			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Number of permissions for Borrow Pits	Ensure proposals have minimum detrimental impact All permissions consistent with all the criteria in this policy	Any approval not consistent with this policy	None identified
The Strategy for Ball Clay Extraction			
BC1 - Provision of Ball Clay			
Tonnage of material identified within the areas of least sensitivity included in the MSAD **Tonnage of material identified from sites outside of the areas of least environmental sensitivity included in the MSAD** **Total quantity of ball clay as permitted reserves** **Actual sales/production of ball clay annually**	**To maintain an adequate supply of all grades of ball clay**	**If it is clear that permitted reserves are unlikely to be sufficient to maintain an adequate and steady supply then the policy may need to be reviewed**	**Investigating specific mineral resources is reliant on third party investigations** **It may not be possible to identify sufficient sites in the MSAD. Therefore the MCS contains criteria within policies to guide planning applications.** **Due to the sensitive location of the ball clay resource delivery of this strategy will rely on proposals demonstrating that there would be no effects on designations.**

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
BC2 - Ball Clay Transportation			
The extent to which any alternative means of transport to and from Furzebrook are utilised	Consideration of alternatives to the bulk transportation of minerals by road in applications. Applications including an increase in transportation to be accompanied by a statement of sustainable transport options.	Any approval not consistent with this policy	None identified
BC3 - Extraction of Sand and Gravel in association with Ball Clay within the AONB			
Number of permissions and allocations within the Minerals Site Allocations Document for the extraction of sand and gravel in association with ball clay working within the AONB which are not consistent with the policy.	All permissions consistent with this policy	Any approval for large scale or major extraction of sand and gravel, in association with ball clay,within the AONB would be contrary to this policy. The need for policy review may be necessary.	None identified
The Strategy for Purbeck Stone Extraction			
PK1 - Provision of Purbeck Stone			
Level of output of Purbeck Stone	**Sites identified in MSAD to meet requirement of 143,000 tonnes (an average of 25,000 tpa).**	**Significant increase in output may require a policy review**	**National Trust restrictions may have an impact on the delivery of this policy. If this becomes an issue when identifying**

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
			sites, discussions with the NT will be necessary. **MPA lack the detailed geological information and financial resources to investigate specific mineral resources - reliant on third party investigations** **- sites beyond those in MSAD may be needed, which it is not possible to prescribe at this time.**
PK2 - Considerations for Purbeck Stone Extraction			
Grant of permission from outside the Area of Search	Permitted sites consistent with the policy criteria	If site are being permitted or allocated from outside the Area of Search, consideration may need to be given to whether the identified area remains appropriate - e.g. new evidence that may require a revision to the identified area or an exception to the policy is unlikely to be repeated?	Identification of potential sites will rely on landowners bringing forward sites.

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
PK3 - Service Areas			
Number of conditions linked to site improvements Net change in the number of service areas	No net increase in number of service areas	Approval for any additional service area Advances in technology	None identified
PK4 - Crushing of Purbeck Stone			
Amount of Purbeck Stone allowed to be crushed as a result of permissions being granted	Crushing only in line with exceptional circumstances outlined	Any approval not consistent with this policy Any unexpected and exceptional need for crushed rock could highlight a need for review	None identified
PK5 - Importation of stone from Outside Purbeck			
Number of permissions for the processing, storage and resale of imported stone and total tonnage permitted	No permissions for storage and resale of imported stone Importation of stone for processing should be in keeping with current levels	Any approval not consistent with this policy A significant rise in the amount of imported stone permitted	None identified
The Strategy for Portland Stone Extraction			
PD1 - Underground Mining and High Wall Extraction of Portland Stone			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Number of underground/high wall mines permitted Quantity of reserves relinquished	All permissions consistent with this policy Relinquishment of areas most sensitive surface quarrying Improved restoration schemes	Any approval not consistent with this policy	Relies on the minerals industry bringing forward sites for approval. Currently only one operator is investing in technology suitable for mining.
PD2 - Surface quarrying of Portland Stone			
Number of refusals issued and permissions granted for new quarries on Portland Quantity of reserves relinquished	No permission for surface extraction unless environmental improvements would be achieved	Any approval for the opencast extraction of Portland Stone where there are no environmental improvements secured	None identified
PD3 - Relinquishment of Permission			
Extent of areas where planning permission is relinquished from within and outside of areas identified as preferred for relinquishment Mechanisms through which this is secured	Reduce surface quarrying and extraction from the cherty series from those areas identified as sensitive	Any approval not consistent with this policy	Relies on voluntary agreement of the minerals industry to leave sensitive areas unworked.
PD4 - Minimising Environmental Impacts of existing permissions			
Number and nature of conditions imposed through the Review of Old Mineral Planning Permissions (ROMP)	ROMP applications determined in accordance with this policy	ROMP determined without securing the improvements set out	None identified

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
process originating from the application of this policy, that will bring about environmental improvements			
PD5 - Restoration of Sites on Portland			
Number of restoration schemes secured that address the issues covered by this policy	All schemes consistent with this policy in terms of achieving a positive outcome from the restoration of former workings	If it appears that restoration schemes are not achieving the criteria set out it may become necessary to prepare an SPD dealing specifically with restoration of existing sites on Portland.	None identified
The Strategy for Building Stone Extraction			
BS1 - Building stone quarries			
Number of sites identified in the MSAD and/or new permissions for building stone quarries or extensions to existing quarries	No specific target production/sales figure, monitor to assess future need Identify specific sites in the MSAD, as appropriate.	Any approval not consistent with this policy	Safeguarding policies will be of key importance to the delivery of this policy
The Strategy for Hydrocarbons			
HY1 - Proposals for Exploration and Appraisal			
Number of permissions granted in accordance with the policy	**All permissions consistent with policy**	**Any approval not consistent with this policy**	**None identified**
HY2 - Proposals for Production Sites and Ancillary Development			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Number of permissions granted in accordance with the policy **Facilities permitted that sit within an agreed overall framework**	**All permissions consistent with policy** **All frameworks agreed**	**Any approval not consistent with this policy**	**None identified**
HY3 - Transportation of Hydrocarbons			
Number of developments permitted that use pipelines or rail haulage for the transportation of hydrocarbons	All developments use pipelines or rail haulage	It may be necessary to review this policy if the percentage of developments not using pipeline or rail haulage is significant	None identified
HY4 - Decommissioning and Restoration of Production Facilities and Ancillary Development			
Conditions attached to permissions for production sites requiring the submission of a decommissioning strategy and restoration scheme.	Well sites and facilities are restored promptly. Decommissioning and restoration is in accordance with a strategy agreed by the MPA.	Permission granted with no requirement for the submission of a decommissioning/ restoration strategy.	None identified
HY5 - Underground Gas Storage			
Permissions granted and refused for underground gas storage	All permissions consistent with this policy	Any approval not consistent with this policy. If it is deemed unlikely that any further applications	None identified

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
		will be received for underground gas storage it may be appropriate to delete this policy	
Other Minerals			
IS1 - Industrial Sand			
Total quantity of industrial sand as permitted reserves Total quantity of industrial sand identified within the Minerals Site Allocations Document Actual sales/production of industrial sand annually	Maintenance of a 10 year landbank	Any approval not consistent with this policy.	As sites are exhausted this policy will require new sites/extensions to be identified with the required quality of sand. This relies upon the minerals industry and landowners bringing forward sites for appraisal. The production of this mineral depends on the identification of relevant markets.
Safeguarding			
SG1 Minerals Safeguarding Area			
Number of applications refused/objections made on safeguarding ground or approved with prior extraction	No sterilisation of economically important mineral resources	Any sterilisation of economically important mineral resources Safeguarding areas are vital to the delivery of the MCS in order to prevent	Delivery will require close working with district/borough councils to protect minerals resources and allow future extraction to take place.

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
		development that may prejudice future mineral working.	Ensuring up-to-date proposals map. May lack detailed information to investigate fully resources - reliant on third party data.
SG2 - Mineral Consultation Area			
Number of consultations undertaken Number of developments without prior extraction of minerals resources	District/Borough Councils to consult Dorset County Council over all proposals within or partly within MCA No sterilisation of economically important mineral resources	Any sterilisation of economically important mineral resources.	Delivery will require close working with district/borough councils to protect minerals resources and allow future extraction to take place. Ensuring up-to-date proposals map
SG3 - Safeguarding of Mineral Sites and Facilities			
Number of applications having an adverse effect on safeguarded minerals sites or facilities	No negative impacts on existing minerals operations	District/Borough Councils not consulting the County Council over relevant proposals.	Delivery will require close working with district/borough councils to protect sites and facilities
Restoration			
RS1: Restoration, aftercare & afteruse of minerals development			
The completion of a Restoration SPD Number of schemes achieving habitat creation delivering	100% of applications/permissions consistent with this policy	Any approval not consistent with this policy	If an SPD is not produced there may be implications for site restoration, however as specific guidance for the

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
objectives of Biodiversity Action Plan % of minerals development planning applications compliant with the requirements of the policy	An SPD on restoration to be completed in order to provide detailed guidance on restoration		management of the landscape types of the county have been produced these should help provide advice. The Dorset Biodiversity Strategy and other local strategies should also be used to guide development in the absence of an SPD.
RS2: Retention of Plant, Machinery and Ancillary Development			
Permissions granted or refused for the retention of plant and machinery	100% of applications/permissions consistent with this policy	Any approval not consistent with this policy	None identified
RS3: Establishment of local liaison groups			
Number/ proportion of consents where a local liaison group has been established.	All new mineral extraction permissions to have considered and where appropriate established local liaison groups	If a significant proportion of new mineral sites do not have a local liaison group, discussions will be necessary with DM and possibly with the minerals industry to establish why.	Establishment of liaison groups needs the commitment of the minerals industry and local communities.
Development Management			
DM1: Key criteria for sustainable minerals development			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
% of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy in order to deliver the key objectives of the Plan	Any approval not consistent with this policy	Identification of mitigation may be essential to the implementation of this policy and the delivery of the Plan
DM2: Managing the impacts on Amenity			
% of minerals development planning applications compliant with the requirements of the policy	100% of applications/permissions consistent with this policy	Any approval not consistent with this policy through failing to meet the criteria This policy will apply when development falls below the EIA threshold	Environmental Impact Assessment Regulations require an assessment of significant environmental effects of certain developments and therefore will highlight specific impacts that need to be assessed - matter for the MSAD Identification of mitigation may be essential to the implementation of this policy and the delivery of the Plan
DM3: Managing the impact on surface water and groundwater resources			
Number of proposals including a FRA and/or incorporating SUDs % of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy in order to protect and enhance the water environment	Any approval not consistent with this policy	Likely to require the input from external specialist consultees such as the EA and other infrastructure provides

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
DM4: Protection and enhancement of landscape character & the countryside			
Number of proposals including an assessment of the adverse impacts upon landscape character % of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy	Any approval not consistent with this policy	Documents such as the Dorset Landscape Character Assessment, AONB Management Plan and the South East Dorset Green Infrastructure Strategy should provide further guidance to help delivery of this policy.
DM5: Biodiversity and Geological Interest			
Number of proposals including an assessment of the biodiversity and geodiversity interest. Number of applications where biodiversity benefits are identified % of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy in order to protect, maintain and / or enhance sites and species of international and national importance	Any approval not consistent with this policy	Delivery of this strategy will rely on proposals demonstrating that there would be no unacceptable effects on designations. This will not be met if significant adverse impacts cannot be mitigated. Documents such as the Dorset Local Geodiversity Action Plan should provide further guidance to help delivery of this policy. Identification of mitigation may be essential to the implementation of this policy and the

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
			delivery of the Plan - where mitigation cannot be identified and sites cannot be developed.
DM6: Dorset and East Devon Coast World Heritage Site			
Number of relevant proposals with assessment of impact on and mitigation for the World Heritage Site and its setting	All permissions consistent with this policy	Any approval not consistent with this policy	None identified
DM7: The Historic Environment			
Number of proposals including an assessment of the historic environment and/or archaeological evaluation % of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy	Any approval not consistent with this policy	Minerals and Historic Environment Forum practise guide and Historic Landscape Characterisation study may provide further guidance to help delivery of this policy.
DM8: Sustainable Transport and Minerals development			
% of proposals facilitating sustainable transport in compliance with the policy Number of applications accompanied by a TA	100% applications/permissions consistent with this policy	Any approval not consistent with this policy	Possible options for facilitating sustainable transport such as rail and water are different for each mineral type but generally may be limited in the county.

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Number of Applications containing sustainable transport assessment			Minerals can only be worked where found and there are many instances where they are required to be worked some distance from the strategic highway network
DM9: Extraction and Restoration within Airfield Safeguarding Areas			
% of minerals development planning applications compliant with the requirements of the policy	100% applications/permissions consistent with this policy	Any approval not consistent with this policy	None identified
DM10: Legal Agreements			
Number of relevant permissions issued which include legal agreement	All permissions which require or qualify for a legal agreement to have one.	Any qualifying proposed development permitted without the benefit of a legal agreement.	None identified
Policy DM11: Review of Old Mineral Planning Permissions			
Number of times policy used in ROMP decisions	All relevant applications/permissions consistent with this policy through the achievement of optimum working and restoration standards	Any approval not consistent with this policy	None identified
Implementation and Monitoring			
Policy MON1: Monitor and Manage			

Key Indicators(s)	Target	Trigger Point for correction and/or mitigation	Implementation Issues
Number of applications including conditions related to the supply of production figures on a regular basis.	All relevant applications/permissions consistent with this policy	Any approval not consistent with this policy	There could be issues around commercial confidentiality that could limit the availability of information for use in monitoring purposes.

10 What Happens Next?

10 What Happens Next?

10.1 Sustainability appraisal has played an integral part in the preparation of the MCS, contributing to its development by providing an assessment of the sustainability of:

- The Issues and Options Report
- The Draft Minerals Core Strategy
- The Revised Draft Minerals Core Strategy and
- The Pre-Submission Draft Minerals Core Strategy

10.2 The process has therefore provided an ongoing check on the sustainability of the emerging document as envisaged by government guidance. The SA has made a series of recommendations for mitigation that have sought to improve the spatial strategies and policies of the MCS, and its implementation. Many of the recommendations have been incorporated into the developing MCS, which in turn will be informed by consultation on the SA report which supports the Pre-Submission Draft Minerals Core Strategy.

10.3 Preparation of the MCS has already been through a number of stages, during which time extensive stakeholder involvement has taken place. At this stage, the plan is published as required by Regulation 19 of the Town & Country Planning (Local Planning) (England) Regulations 2012. The intention of issuing this SA Report alongside the MCS is to allow for representations to be made in connection with issues of soundness (i.e. whether the MCS is justified, whether it is effective and whether it is consistent with national policy), issues relating to the Duty to Cooperate and whether it is legally compliant.

10.4 The SEA Regulations set specific requirements for consultation with the Statutory Environmental Bodies, the public and other interested parties. This SA Report will be published for consultation alongside the Minerals Core Strategy Pre-Submission Draft and will be made available to these bodies so that they can provide a response to the contents of the MCS and SA Report.

10.5 The SA Report, Non-technical Summary and appendices will be available on the Dorset County Council website for a twelve week consultation period beginning on the 6th July 2012 until 28th September 2012. Hard copies of any of the documents are available on request, see contact details below.

10.6 In order to ensure that the scope of representations are restricted to issues of soundness as required, respondents are encouraged to make representations on the official representation form that has been specifically designed. Electronic versions of the representation form can be found on the Dorset County Council website www.dorsetforyou.com/mcs. Comments can be made online, by email or to the following address:

Minerals & Waste Planning Policy

Dorset County Council

County Hall

Collition Park

Dorchester

DT1 1XJ

Tel (01305) 228585

Fax (01305)

Email mwdf@dorsetcc.gov.uk

Responses must be received by 4pm on Friday 28th September 2012

10.7 Should the MCS undergo any further significant changes in the future, including as a result of consultation responses, the changes will be subject to further SA and this report updated. Generally speaking, significant changes are those that result in a change of policy direction.

10.8 Following the publication stage outlined above, submission of the MCS to the Secretary of State is expected to occur during Autumn 2012. This will be followed by an Examination into the MCS in late 2012/early 2013 by an independent Planning Inspector. Following the examination, the Inspector will produce a report with recommendations and will make a decision on whether the MCS is sound and can be taken forward for adoption by Bournemouth, Dorset and Poole authorities. The MCS is scheduled for adoption in 2013.

SA/SEA Statement

10.9 The SA/SEA Statement will be published alongside the Adopted Plan in 2013. Along the SA Report, it must be made available to the three statutory environmental bodies and also the public. The purpose of the statement is to update the environmental information available with the final plan in order to outline how the environmental assessment and consultation have influenced the plan.

10.10 The statement will document any additions, amendments or deletions within the plan which have resulted from the findings of, and consultation on, the SA Report. This will provide detail on how the plan was modified to take into account the issues raised, and if no changes are made in response to an issue, reasons will be given. At this stage information will also be provided to explain why the alternatives carried forward into the plan have been accepted, and why other reasonable alternatives were rejected prior to submission of the MCS.

10.11 The monitoring measures proposed will be finalised in the statement, which may involve the identification of new monitoring measures or amendments to those proposed. If the plan has been altered to avoid predicted significant effects, it may be that some proposed monitoring measures can be deleted.

13 Appendix A - Equalities Impact Assessment

13 Appendix A - Equalities Impact Assessment

14 Appendix B - SA of the Issues and Options MCS

14 Appendix B - SA of the Issues and Options MCS

15 Appendix C - SA of the Draft MCS

15 Appendix C - SA of the Draft MCS

16 Appendix D - SA of the Revised Draft MCS

16 Appendix D - SA of the Revised Draft MCS

17 Appendix E - SA of the Pre-Submission Draft

17 Appendix E - SA of the Pre-Submission Draft