

Somerset Minerals and Waste Development Framework:

Minerals Options Paper

Interim SEA/SA Report

**Prepared for Somerset County Council
by
Land Use Consultants**

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CONTENTS

1	INTRODUCTION	1
	PURPOSE OF SEA/SA	2
	THE MINERALS OPTIONS PAPER.....	3
2	METHODOLOGY	5
3	SUMMARY OF FINDINGS	9
	Vision	9
	Plan Objectives	9
	Option 1a and b:	10
	Option 2a, b and c:.....	12
	Option 3a and b:	13
	Option 4a and b:	14
	Option 5a, b and c:.....	15
	Option 6a and b:	16
	Option 7a and b:	17
	Option 8a and b:	18
	Option 9a and b:	19
	Option 10a, b and c:	20
	Option 11a, b and c:	21
	General Comments	23
	Next Steps.....	24

Appendix I:

Appraisal of the Vision, Plan Objectives and Options

1 Introduction

- 1.1 Land Use Consultants (LUC) was appointed in September 2009 by Somerset County Council to undertake a SEA/SA at each appropriate stage in the formulation of policies and proposals to be contained within the Minerals Core Strategy Development Plan Document (DPD).
- 1.2 This Interim Strategic Environmental Assessment (SEA)/Sustainability Appraisal (SA) has been prepared by LUC to assess the environmental, social and economic impacts of the proposed options based on the draft Minerals Options Paper, July 2011. It will inform the final consultation document and the selection of the preferred options for inclusion in the Core Strategy. It will also accompany the public consultation on the Minerals Options Paper. A full SEA/SA will be prepared on the Pre Submission Core Strategy.
- 1.3 Following receipt of the interim SEA/SA and internal review, Somerset County Council revised the consultation paper, including the options referencing scheme. The options referred to in this document relate to the final consultation options as follows:

Table 1.1: Revised option reference scheme

Draft Option	Final Option
Option 1a and 1b	Issue A1, options a and b
Option 2a, 2b and 2c	Issue A4, options a, b and c
Option 3a and 3b	Removed. Unable to control where minerals are distributed to once reserves are permitted.
Option 4a and 4b	Issue A2, options a and b
Option 5a, 5b and 5c	Issue A3, options a, b and c
Option 6a and 6b	Issue A5, options a and b
Option 7a and 7b	Removed. SCC considered that this policy option is difficult to use in planning decisions and to enforce subsequently. The option included the intention to require a carbon action plan with planning proposals.
N/A	Added issue A6: Renewable energy generation.
Option 8a and 8b	Issue P1, options a and b
Option 9a and 9b	Issue P2, options a and b
Options 10a, 10b and 10c	Issue P3, options a, b and c
Options 11a, 11b and 11c	Issue BSI, options a and b. Options have

	<p>changed. Option 11a supplementary development document replaced with supporting text but not an option. Local Development Order option 11c removed; considered to give too much freedom for minerals development without reference to the Minerals Planning Authority. New option a to support development of local building stone quarries. Retained option for additional activities (11b, now b).</p>
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- 1.4 Please note that the wording of the options within this report reflects the text of an earlier version of the minerals options paper which was reviewed¹. It should also be noted that some of the recommendations accepted in this report have been carried through to the Minerals Option Paper, Final November 2011 prior to consultation. Where recommendations have been carried forward from the SEA/SA and resulted in revisions to the Minerals Options Paper, November 2011, these are indicated in italics and underlined, thereby reflecting a clear audit trail in the development of the Core Strategy.
- 1.5 As part of the iterative nature of the development of the Core Strategy and SEA/SA, additional policy options which have been added to the Minerals Option Paper, November 2011 have been reviewed and included within this report. These include Option A6a and A6b (additional option) covering renewable energy as well as Option 11a (revised) now referred to as BSI covering local stone for local demand. The additions have been presented in the main body of the text and not as a separate addendum.

PURPOSE OF SEA/SA

- 1.6 The purpose of SEA/SA is to ensure significant environmental, social and economic issues are identified and addressed in the plan (where relevant to a Minerals Core Strategy), and inform all stages in the decision-making process. By taking these factors into account during the preparation of the Minerals Core Strategy, planning decisions formulated on the basis of the adopted DPD should be in line with the principles of sustainable development.
- 1.7 SEA/SA has to be undertaken of all land use plans. The Minerals Core Strategy DPD requires a SEA/SA to be undertaken at various stages in its development. SEA/SA is a five stage process covering:
- Stage A: Defining the context, baseline and SA Objectives/Framework (Scoping).
 - Stage B: Predicting and assessing the effects of the implementation of the DPD and reasonable alternatives (options).

¹ Minerals Option Paper Version 5, July 2011, Somerset County Council

- Stage C: Recording the findings of the appraisal in the SEA/SA report.
 - Stage D: Consulting on the DPD and SEA/SA report.
 - Stage E: Monitoring the implementation of the Plan.
- 1.8 Stage A comprised a review of baseline information, relevant policy objectives, and the development of a framework of sustainability objectives and indicators which was reviewed by statutory consultees. The SA Objectives/Framework is outlined in **Table 2.1** of this report. The findings of Stage A were presented in a Scoping Report for the Somerset Minerals and Waste Development Framework², prepared in October 2007, and updated in 2010 and available on the Council's website www.somerset.gov.uk/mineralsandwaste
- 1.9 This interim SEA/SA report focuses on Stage B of the SEA/SA process. It should be noted that based on Government's Planning Regulations the preparation of an interim SEA/SA report is not required. However it was felt that this report would guide the development of policy options in the Minerals Core Strategy and form part of a wider evidence base which includes the Scoping Report. Information from all the SEA/SA stages will be included in the SEA/SA report to accompany the pre-submission Core Strategy DPD.

THE MINERALS OPTIONS PAPER

- 1.10 The draft Minerals Options Paper, July 2011 identifies a number of potential options relating to future minerals development within Somerset (summarised in Chapter 3). It provides the opportunity for consultation and feedback which will guide the development of the Minerals Core Strategy DPD.
- 1.11 The document has been informed by specific consultation exercises with statutory consultees and others with a knowledge and interest in minerals issues which spanned between October 2009 and September 2010. The consultations focused on the three main minerals extracted within Somerset, namely peat, aggregates and building stone. A number of specific reports were also commissioned by the County Council to support the baseline evidence.
- 1.12 The Minerals Core Strategy DPD will set out the vision, plan objectives and planning policy framework for minerals development in Somerset for the period up to at least 2028. It will also consider the need to contribute towards national, regional and local requirements for minerals together with social, environmental and economic considerations.

² URS/Scott Wilson, (February 2011) Sustainability Appraisal and Strategic Environmental Assessment, Scoping Report

- I.13 The Council timetable for the preparation of the Minerals Core Strategy DPD is defined below:
- Regulation 25 (continuous engagement): December 2011 to January 2012
 - Regulation 27 (pre submission):September/October 2012
 - Regulation 30 (submission to Secretary of State):February 2013
 - Pre examination: Spring 2013
 - Examination in Public: June 2013
 - Adoption: November 2013
- I.14 The following two chapters outline briefly the SEA/SA methodology and a summary of the findings of the appraisal process.

2 Methodology

- 2.1 The SEA/SA sought to appraise the vision, plan objectives and options outlined in the draft Minerals Options Paper, July 2011 against the SA Objectives/Framework detailed in **Table 2.1** below. The SA Framework was developed from the identification of sustainability issues and social, environmental, social and economic policy objectives set at the international, national, regional and local level as relevant to the Minerals Core Strategy DPD as recorded in the SEA/SA Scoping Report.
- 2.2 Government guidance³ states that options need to be compared against each other and with the current social, environmental and economic characteristics of the area which is subject to the DPD and the likely future situation without a DPD. In doing so they need to be tested against the SA Objectives or SA Framework.
- 2.3 Identifying options is an integral part of sound plan-making. The SEA/SA can help with the process of refining options and can help the plan maker to identify reasonable alternative options that may otherwise not have been considered. The SEA Directive, the Planning Inspectorate Guidance on assessing soundness⁴ and PPS 12⁵ all emphasise the importance of considering “reasonable alternatives” for a plan.
- 2.4 The appraisal of the Options Paper examined the comparative sustainability performance of alternative courses of action and reports on the findings. It should be noted that the SEA/SA can only give a considered view of the relative sustainability merits of each option; it is the role of the plan makers, informed through public consultation, to determine which options they wish to carry forward.
- 2.5 Each option was assessed in terms of the nature of its impact (beneficial, adverse, uncertain), its relative magnitude and duration overtime. A series of matrices were used to inform judgements and identify the sustainability effects as detailed in **Appendix I**. The matrices enabled the reviewers to compare options, and includes a summary of key issues which informed the SA findings detailed in **Chapter 3**.

³ See DCLG Plan Making Manual hosted on the Planning Advisory Service Website

⁴ The Planning Inspectorate, (2007) Local Development Frameworks: Lessons Learnt Examining Development Plan Documents

⁵ Department of Communities and Local Government, (June 2008), Planning Policy Statement 12, Local Spatial Planning

Table 2.1: SA Framework

SA Objectives	Appraisal Criteria/Sub Objectives
<p>1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species</p> <p>Covers SEA Directive topics: - Biodiversity - Flora - Fauna</p>	<ul style="list-style-type: none"> • Will it maintain and enhance relevant BAP Habitats and species? • Will it restore the full range of characteristic habitats and species to viable levels? • Will it protect and enhance habitat corridors and linking routes? • Will it help create new habitats? • Is it near to an airfield and likely to increase the chance of birdstrike? • Will it protect and conserve important geological sites? • Will it conserve and enhance the best sites that present the geological history of Somerset? • Will it create new geological exposures of education interest?
<p>2. Protect and enhance landscape character, local distinctiveness and historic built heritage</p> <p>Covers SEA Directive topics: - Cultural Heritage - Landscape</p>	<ul style="list-style-type: none"> • Will it protect and enhance the diversity and distinctiveness of Somerset's landscape and protect it from the negative impacts of minerals development? • Will it contribute to the proper restoration of future and historical minerals sites, maximising after-use potential for beneficial use (e.g. agriculture, nature conservation, recreation, amenity, water storage, flood management) as appropriate? • Will it protect and further enhance the historic environment and archaeology? • Will it facilitate the supply and use of local building materials to protect local character? • Will it affect dark skies from light pollution? • Will it protect and enhance the tranquillity of Somerset (e.g. by minimising noise arising from minerals facilities and transport)?
<p>3. To maintain and improve ground and surface water quality</p> <p>Covers SEA Directive topics: -Water</p>	<ul style="list-style-type: none"> • Will it affect groundwater resources through for instance excavations below the water table? • Will it impact on surface water quality and cause disturbance to or removal of surface water features? • Will it improve water efficiency?

Table 2.1: SA Framework

SA Objectives	Appraisal Criteria/Sub Objectives
	<ul style="list-style-type: none"> • Will it cause disruption to hydrological systems? • Will it contaminate ground or surface water?
<p>4. Maintain and improve air quality</p> <p>Covers SEA Directive topics: - Air</p>	<ul style="list-style-type: none"> • Will it increase congestion? • Will it increase dust production e.g. through crushing and grading processes, haulage and blasting? • Will it result in an increase in traffic pollution and other air pollution associated with all mineral development? • Will it lie within an Air Quality Management Area?
<p>5. Address the causes of climate change through reducing greenhouse gas emissions</p> <p>Covers SEA Directive topics: - Climatic Factors</p>	<ul style="list-style-type: none"> • Will it reduce distances travelled by road for the transportation of minerals? • Will energy consumption be minimised by the processing of the resource? • Will green house gas emissions reduce if the site lies close to its final destination – does the quarry supply a local area or are supplies exported further afield? • Will extraction processes produce carbon dioxide, methane or other greenhouse gases? • Will there be potential for rail or water-based access to and from mineral sites? • Will there be potential for the efficient use of conveyors? • Will there be an opportunity to increase backloading where appropriate • Will it be well located in relation to surrounding markets for minerals? • Will the mineral operation serve local needs? • Will it encourage the use of renewable energy sources?
<p>6. Limit vulnerability to flooding taking account of climate change</p> <p>Covers SEA Directive topics: - Human Health - Water</p>	<ul style="list-style-type: none"> • Is the development with an area liable to flooding (e.g. Flood Zones 2 or 3)? • Will the development increase the risk of flooding in this or other areas? • Will it help flood management, taking account of climate change?

Table 2.1: SA Framework

SA Objectives	Appraisal Criteria/Sub Objectives
- Material Assets - Climatic Factors	
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity Covers SEA Directive topics: - Human Health	<ul style="list-style-type: none"> • Will it have harmful effects on human health and be sited close to sensitive receptor? • Will it affect amenity through dust and noise e.g. through blasting/traffic or vibration? (NB the effects of dust are also considered separately under Objective 4) • Will it affect road safety? • Will it affect access (transport infrastructure – road, footpaths, bridleway and cyclepath) and use of public open space, country parks and/or Public Rights of Way? • Will it constrain access to services and facilities?
8. Minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation Covers SEA Directive topics: - Material Assets	<ul style="list-style-type: none"> • Will it reduce extraction of virgin materials? • Will it encourage the use of secondary and recycled aggregates through for instance construction works and/or backfilling? • Will it avoid sterilising mineral resources by preventing unnecessary development on or near to mineral resources? • Will it require prior extraction if development that would sterilise mineral resources is to go ahead? • Will it encourage efficient use of land? • Will it encourage the minerals sector to take responsibility for the waste associated with their operations?
9. Contribute to economic growth and diversity	<ul style="list-style-type: none"> • Will it generate diverse new jobs the region? • Will it support and encourage the growth of small and medium size business? • Will it encourage the provision of more locally based skills and facilities?
10 To conserve and enhance soil quality Covers SEA Directive - Soil	<ul style="list-style-type: none"> • Will it reduce contamination? • Will it minimise the loss of the best and most versatile agricultural land?

3 Summary of Findings

- 3.1 This section summarises the findings of the appraisal of the vision, plan objectives and options as detailed below, further information is summarised in **Appendix I**.

VISION

- 3.2 The Council's vision for mineral planning is:

“To provide a sustainable supply of minerals to meet society's needs without unacceptable detriment to the environment or the communities in Somerset”

- 3.3 **SA Findings:** The proposed vision, when assessed against the SA Objectives was found to be in accordance with sustainability principles. It seeks to protect the environment as well as communities. It is recommended however that the vision is strengthened by referring to the need to “ensure the sustainable supply and use of minerals”, thereby covering any potential concerns relating to the protection of the primary resource and the need to promote substitute, secondary and recycled materials. In addition, it is recommended that the vision incorporates a reference to climate change. It should be noted that the Core Strategy needs to give clear guidance on what would be acceptable and what would be unacceptable; linked back to the vision.

PLAN OBJECTIVES

- 3.4 The Council has developed seven Plan Objectives outlined below:
- **Plan Objective A:** To ensure that Somerset is able to provide an adequate supply of minerals in accordance with government guidance in order to contribute to national, regional and local requirements in a sustainable manner.
 - **Plan Objective B:** To provide an appropriate balance between the protection of Somerset's natural and historic environment and character, and the supply of minerals recognising the benefits of the minerals industry including provision of rural jobs.
 - **Plan Objective C:** To promote the efficient production and use of primary minerals together with the minimisation of waste and the increased substitution of alternative materials to reduce the impact of mineral production on climate change and protect finite resources.
 - **Plan Objective D:** To reduce the impacts arising from the transportation of minerals on local communities by maximising opportunity for mineral movement by rail or water.
 - **Plan Objective E:** To seek a positive contribution from the minerals industry whilst sites are operational and through site restoration in terms of environmental and community

enhancements such as biodiversity, geo-diversity, landscape, recreation and access.

- **Plan Objective F:** To bring together the minerals industry and local communities to identify and implement suitable reclamation schemes at dormant or abandoned mineral workings that are problematic and unlikely to work again, for the benefit of local communities or the environment.
- **Plan Objective G:** To avoid the unnecessary sterilisation of valuable mineral resources by other types of development.

3.5 **SA Findings:** The proposed Plan Objectives were found to be compatible with the SEA/SA Objectives. The Plan Objectives seek to protect the environment (Plan Objectives B, E and F), support economic growth (Plan Objectives A and B) whilst ensuring that natural resources are protected for future generations (Plan Objective C and G). The Plan Objectives also seek through (Plan Objective E and F) to make a positive contribution to the environment through specific restoration proposals associated with active and dormant/abandoned sites.

3.6 The SEA/SA suggests that Plan Objective B should be reinforced to ensure that where there are potential adverse environmental impacts resulting from the supply of minerals, proposals for extraction, transportation and restoration are sensitively planned and managed.

3.7 The SEA/SA considers that Plan Objective D makes a positive contribution by reducing mineral transportation by road. This has the potential to reduce the negative effects of HGV movements on small roads including improving road safety, reducing air pollution, noise pollution and greenhouse gas emissions in line with Government guidance to reduce greenhouse gas emissions and adapt to climate change. Within the Plan Objectives greater recognition should also be given to the impacts of the mineral industry (i.e. dust, noise and particle emissions) on human health associated with onsite activity such as blasting and vibration. For example, Objective B could include mid-sentence the phrase “safeguarding the amenity of local communities”.

Options

Option 1a and b (now Issue A1, options a and b):

3.8 The Council presents two options associated with the size of the crushed rock land bank:

Option 1a: Permitted reserves should be identified to meet demand for the lifetime of the plan plus 15 years i.e. a total of 32 years from

2011 at 11.7 Mt/year (average supply rate 1999-2009) Landbank requirement = 374 MT from 1 January 2011.

Option 1b: A landbank of 15 years should be maintained at 13.41 Mt/year (sub-regional apportionment). Landbank requirement = 201 Mt.

- 3.9 **SA Findings:** The SEA/SA found it difficult to determine which option was the most sustainable and has made a number of assumptions. Both options indicate a landbank over and above that which has been identified in Minerals Policy S 1: Planning and Minerals which states under para 4.1 that *“MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.”*⁶ This last point is reiterated in MPS 1 Annex 1 ⁷ which stresses that steps should be taken to avoid and reduce excessive landbanks. *“New planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves”* and that the industry is encouraged to agree voluntarily to the revocation of planning permissions at sites that are unlikely to be worked again. MPS1 also states that *“MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State... If review and updating takes place regularly then maintaining a landbank beyond the end of the plan period is not an issue.”*
- 3.10 Both options are sustainable in terms of ensuring that materials are available locally and would generate significant positive effects in terms of meeting economic growth, providing a steady supply of materials for the construction industry, enabling it to meet society's needs. Equally both options seek to maintain low levels of greenhouse gas emissions, minimising the importation of materials from elsewhere which is unsustainable, particularly when large volumes and long distances are involved. However, where the tensions lie are between the need to safeguarded and provide a steady supply of minerals, and the need to

⁶ Department of Communities and Local Government, (November 2006) Minerals Policy Statement 1: Planning and Minerals

⁷ Department of Communities and Local Government, (November 2006) Minerals Policy Statement 1: Planning and Minerals

maintain Somerset's distinctive character and protect its natural resources.

- 3.11 Although Option 1a provides longer term security for reserves to justify capital investment and supports economic growth, it may delay environmental gains resulting from the knock on effects of finding permitted reserves elsewhere. Whereas Option 1b may achieve greater environmental gains over potentially a shorter timescale (albeit that such gains will be influenced by the nature of the site). In addition, due to the size of the proposed landbank, Option 1a would safeguard reserves from sterilisation by other developments over a long timescale, the availability of a non-renewable resource may counter Government's drive towards increasing the supply of recycled/substitute materials and minimising the consumption of a primary resource especially if an oversupply leads to lower prices potentially stifling competition. Equally the longer timescale may hamper other development opportunities.
- 3.12 The SEA/SA considers that both options should include a clause which seeks a voluntary revocation or prohibition of sites where a net environmental gain can be achieved. When considering both options the Council should review and update the Plan on an annual basis in case there is a potential shortfall in supply. The SEA/SA suggests that the Paper would benefit from an explanation as to why these two options were selected.

Option 2a, b and c (now Issue A4, options a, b and c):

- 3.13 Three options were considered exploring how the Council would address the shortfall in sand and gravel reserves:
- Option 2a:** Retain the mineral designated areas around Whiteball to help meet the apportionment in conjunction with Devon.
- Option 2b:** Review potential Areas of Search or Preferred Areas through a call for sites from the minerals industry.
- Option 2c:** Criteria based policy approach for new sand and gravel reserves.
- 3.14 **SA Findings:** MPS 1 identifies that there should be a landbank of at least 7 years for sand and gravel. However based on the Options Paper there is likely to be a shortfall identified in Devon post 2019. It is unclear from the text what the shortfall will be, and what the implications are for Somerset County Council. Until this is resolved the SEA/SA considers that it is logical that all the options are retained to achieve the most sustainable option, considering firstly the retention of mineral designated areas around Whiteball, secondly potential new

sites and lastly a criteria based policy to sift suitable sites which may have greater environment gains than sites identified in the Areas of Search or Preferred Areas.

- 3.15 Whilst the SEA/SA would support opportunities to concentrate activity within distinct areas, where there is the existing infrastructure in place, promoting opportunities for further investment and the retention of employees, careful consideration needs to be given to the impact of proposals on the local environment and communities, particularly cumulative effects generated from additional sites.
- 3.16 All the options presented would meet objectives within MPSI which states that where a shortfall needs to be addressed (in the case of Devon) this “*should, where practicable, be made up for elsewhere in the same region*” para 3.4. Equally Option 2c reflects Government guidance which states under Draft National Planning Policy Framework - para 102 that planning applications need to be assessed against environmental criteria to determine whether proposals have “*unacceptable adverse impacts on the natural and historic environment or human health, including from tip- and quarry-slope stability, differential settlement of quarry backfill and migration of contamination from the site.*”
- 3.17 The SEA/SA would like to note that there should be some consistency in the terminology used for both Option 2a and 2b; Option 2a refers to Mineral Designated Areas whilst Option 2b refers to Areas of Search or Preferred Areas. MPSI Best Practice states that preferred areas are where resources are known, whilst areas of search are broad areas where the knowledge of resources is less certain.

Option 3a and b (removed):

- 3.18 The Council under these options considers whether additional reserves are required to meet a particular need and whether the supply of such reserves should be constrained:

Option 3a: Protect reserves to ensure they are used to meet the need for which they were permitted e.g. Additional reserves at rail-linked quarries to supply predominately rail-transported materials and Moons Hill to use the higher PSV materials for road surfacing, Without constraining the end-use, operators with strategic sites will have easier access to additional reserves than other competitors and therefore an unfair market advantage Also resources that cannot easily be replaced will be used for more general purposes e.g. rail linked resources used for the local market supplied by road.

Option 3b: There is no need to protect reserves to be used for the need for which they were permitted. Market forces will ensure that the additional reserves will be directed to meet that need and by

restricting the end-use the operator will not have sufficient flexibility to meet changing market demands.

- 3.19 **SA Findings:** The SEA/SA considered that Option 3a is the most sustainable option, since it seeks to ensure that careful consideration is given to the output and supply of material. This option promotes the use of rail haulage at Torr Works and Whatley Quarry, reducing greenhouse gas emissions. It ensures that the high quality outputs from Moons Hill quarry are not used for unnecessary purposes. It also aims to maintain competition amongst other operators, although this will have to be carefully monitored to ensure that smaller operators are not unfairly prejudiced by such proposals. The SEA/SA considers that opportunities could be explored with smaller operators to encourage a reduction in their greenhouse gas emissions through for instance back hauling (also known as back loading) by utilising return journeys by HGVs to transport waste reducing the necessity to use additional road trips to import materials to quarries at a later date (i.e. for the processing of secondary or recycled materials)

Option 4a and b (now Issue A2, options a and b):

- 3.20 The Council presents two options over whether there should be a limit on the quantity of additional reserves that can be permitted where a need that cannot be met from other sources is identified when the landbank is excessive.

Option 4a: No. A proposal for additional reserves should be considered on its own merits. The size of the proposal is irrelevant as long as the environmental and local community impacts can be mitigated or are not significant. To limit the size of the additional reserves would have a reasonable economic impact on the applicant

Option 4b: Yes. When the landbank is already excessive the addition should be limited, for example to 25 years supply to meet the specified need.

- 3.21 **SA Findings:** The SEA/SA considers that Option 4b is the most sustainable option based on the proposal to constrain the number of additional sites which come forward and the potential positive effect this could generate on environmental objectives, human health and amenity. It should be noted that whilst impacts on human health and amenity will reduce, such impacts are likely to be managed through site specific controls relating to output and working practices. It should be noted that the following issues need to be taken into account when assessing whether additional reserves are viable options:

- In developing a policy careful consideration should be given to whether, as additional reserves come forward, there are net

environmental gains over and above other sites ,and whether there can be a “trade-off” (or voluntary revocation or prohibition) of inactive sites unlikely to be worked again, particularly where sites are already within the landbank.

- Additional reserves may be considered where it can be demonstrated that those permissions and allocations within the proposed landbank would not maintain the level of provision and production capacity proposed of either Option 1a (11.7 Mt/year) or Option 1b (13.47 Mt/year), and where it satisfies an anticipated need to maintain an adequate landbank (including for specific major projects).
- Consideration must be given to unexpected circumstances or unforeseen proposals being put forward.
- The Paper may need to consider a clause which seeks to ensure that the applicant is required to provide evidence to explain reasons why the need for the mineral could not be met from reserves on existing permitted or allocated sites.

Option 5a, b and c (now Issue A3, options a, b and c):

3.22 This section proposes three options to maintain competition:

Option 5a: Continue to policy M35 part 2 “Proposals for the extraction of crushed rock will not be permitted unless the proposal will result in significant benefits to the environment or local communities without significantly increasing the size of the landbank”. A significant increase could be an increase greater than the recent annual sales or the annual apportionment.

Option 5b: A proposal that will increase the landbank but that results in significant benefits to the local community or the environment and is proportionate to the output capacity of the site will be permitted. Proportionate could mean an addition of not more than 10 or 15 years output capacity, or recent annual sales if output capacity is unlimited. Alternatively the addition might be linked to the site’s reserves such that the total reserves following the addition do not exceed 25 years’ worth of supply.

Option 5c: There is no need to make provision for small additions to the landbank when the landbank is excessive.

3.23 **SA Findings:** It is difficult to ascertain whether any of the options are sustainable. Option 5a could result in the concentration of effects, whilst conversely Option 5b could diffuse the effects depending on the location of sites and their proximity to each other, as well as to sensitive receptors.

3.24 Both Option 5a and 5b refer to significant benefits to the local community or the environment with specific examples under para 4.60 covering for instance provision of highway improvements, relocating of processing plant to reduce impacts on local populations or environment, improved landscaping and restoration scheme, the relinquishment of planning permissions at dormant sites or improved energy efficiency. Whilst these would be positive in SEA/SA terms, this may be at the expense of other impacts arising from the proposals themselves (it is unlikely that minerals proposals would have no negative effects on the environment or communities), which would only be known when specific proposals come forward. In addition, whilst Option 5c prevents further development opportunities it does seek to ensure that further effects on the local communities and the environment could be restricted; albeit that this may be at the cost of stifling economic growth.

Option 6a and b (now Issue A5, options a and b):

3.25 The Council presents two options relating to the restoration and afteruse of quarries within the Mendips:

Option 6a: Restoration and after-use of quarry sites should be determined on a site by site basis.

Option 6b: Restoration should be determined by meeting criteria defined in an agreed long term strategic scale restoration strategy for the Mendips.

3.26 **SA Findings:** The SEA/SA considers that Option 6b would be more sustainable as it would take a holistic approach to long term restoration proposals within the East Mendips. The proposal will be very much dependent on the lifespan of the quarries which come forward, and as such it will be important to ensure that the proposals are not affected by on-going activity of adjacent quarries which are still active, given that the strategy looks forward some 50 years plus (for instance the cumulative effects of noise from blasting).

3.27 It will be important to ensure that climate change adaptation measures are built into proposals which allow sufficient flexibility to enable a review of proposals closer to the end of the working life of each quarry to ensure that they still meet the needs of the area in discussion with local communities, operators and NGOs. Proposals should be of a high environmental standard, applied through conditions where necessary.⁸

3.28 In addition, there would need to be long term proposals for the maintenance and aftercare of the area, the responsibilities for which may be complex given that some sites may come forward before

⁸ Communities and Local Government, (July 2011) Draft National Planning Policy Framework

others. MPG7⁹ states that there is a statutory five year after care period following restoration; however for some after uses it may be that there will have to be planning obligations put in place between a number of owners or operators, and Somerset County Council.

Option 7a and b (removed. Added related Issue A6 renewable energy):

3.29 Two options relating to proposals to reduce the carbon footprint of quarries are presented below:

Option 7a: Carbon produced per tonne of aggregate should be a consideration when determining a planning application for aggregate extraction.

Option 7b: It is in the operators' interests to reduce energy costs and therefore associates carbon, but it is one of many aspects to be considered by the operator in developing a viable scheme and should not be a planning matter in its own right.

3.30 **SA Findings:** It is very difficult to ascertain from both options, without having any baseline information on the carbon footprint of each quarry which is the most sustainable option; although it is likely that Option 7a would provide greater certainty. If Option 7a is carried forward data should be obtained which enables comparisons to be made between sites.

3.31 Somerset County Council is producing a carbon action plan to reduce carbon emissions¹⁰ and if the Core Strategy is seeking to take a proactive approach to reducing the carbon footprint the preferred policy could introduce a condition which seeks to ensure that operators prepare carbon action plans alongside planning applications. This would encourage operators to consider reductions in their footprint including encouraging operators to backfill with secondary and recycled materials, although it should be noted that this should not stifle competition from developers without railheads.

3.32 A report produced by the British Geological Survey¹¹ states that transport from point of production to point of use accounts for more than 40% of total carbon emissions by the aggregates industry, and is where carbon reductions could have a significant impact. Transportation by road is becoming increasingly unsustainable and therefore maintaining strategic sites such as Torr Works and Whatley Quarry are important in reducing carbon emissions.

⁹ Communities and Local Government, (November 1996) Minerals Planning Policy Guidance 7: Reclamation of Mineral Workings

¹⁰ Somerset County Council, (February 2008) Responding to climate change in Somerset

¹¹ A Bloodworth and Jo Mankelov, NERC, (2008) Strategic assessment of the carbon footprint resulting from mass flow of primary aggregate minerals in England,

- 3.33 Careful consideration also needs to be given to market forces, whilst Torr Works and Whatley Quarry currently supply aggregate to London and the South East utilising their rail heads located within their site boundaries, there may be a market shift in the future to a more local base if there is a demand from for instance from large scale projects which may result in the need to promote other alternative means of transport.

Option A6a and b (Renewable energy – additional options)

- 3.34 Two options are presented which consider renewable energy:
- 3.35 **Option A6a:** Renewable energy schemes should be encouraged where in conjunction with minerals operations to support carbon reduction
- 3.36 **Option A6B:** Renewable energy schemes should be considered separately from a mineral application
- 3.37 **SA Findings:** It is very difficult to ascertain from both options, without having any further information on whether renewable energy schemes have been considered as part of mineral applications elsewhere in the country which the most sustainable option is. It is however likely that Option 7a would provide greater certainty and take a more proactive approach in terms of ensuring that the benefits of such a proposal could be maximised and the carbon footprint of the operations reduced.
- 3.38 It is also likely that the type and scale of a renewable energy scheme will be constrained. Proposals for instance from energy from waste schemes, wind farms, large scale solar photovoltaics and short rotation coppicing (i.e. willow and poplar) may all impact significantly on the landscape and visual character of the Mendips AONB as well as ground water hydrology and sensitive receptors.
- 3.39 Within the supporting text it states that Somerset County Council may require a carbon action plan to be submitted with an application showing how the applicant has considered energy efficiency measures. The SEA/SA is supportive of this proposal.

Option 8a and b (now Issue P1. options a and b):

- 3.40 Two options are presented which consider establishing a landbank for peat:
- Option 8a:** A landbank should be identified to ensure adequate provision of peat, whilst avoiding over supply.

Option 8b: No landbank is needed as there is sufficient supply of peat to continue to 2030 by which time there will be no more demand for peat.

3.41 **SA Findings:** The SEA/SA considers that the most sustainable option is likely to be Option 8b which seeks to ensure that areas with a high level of environmental interest and archaeological importance remain protected, supports the protection and conservation of a non-renewable resource for future generations and prevents the release of carbon stored. Whilst there may be a detrimental impact on the businesses of local producers and employers it is recognised through the paper that the number of peat producers has reduced substantially over the years, and as such the impact on the economy overall is likely to be relatively small. It should also be recognised that work has been undertaken to promote alternative development working with operators on projects associated with nature conservation, enhanced wildlife conservation, agriculture or forestry and land and water based activities including for instance fish farms, as well as proposals through for instance the Parrett Catchment Project to alleviate flooding within the Somerset Levels and Moors.

3.42 This proposal, as outlined in the Paper aligns with a clear steer by Government, under the Draft National Planning Policy Framework to phase out the use of peat. It states that local planning authorities should “*not identify sites or extensions to existing sites for peat extraction*” and should “*not grant planning permission for peat extraction from new or extended sites*” in accordance with targets for England to switch to using only peat free growing media and soil improver products by 2020¹².

Option 9a and b (now Issue P2, options a and b):

3.43 Option 9a and b consider how to resolve the effects of peat extraction on NATURA 2000 sites:

Option 9a: Reserves of peat with a valid planning permission that have the potential to have a detrimental impact on NATURA 2000 sites (known as Regulation 63 sites) can be offset through revocation aided by the industry as part of the process of gaining alternative permissions in less sensitive areas, thereby providing environmental and local community benefit. The replacement site will still need planning permission.

Option 9b: Peat permissions that have been defined as Regulation 63 sites will be reviewed with the intention of determining whether they may be affirmed or will need to be modified or revoked. Permissions that are modified or revoked will have to be compensated for by the

¹² Department of Communities and Local Government, (July 2011) Draft National Planning Policy Framework,

County Council, although there may be an opportunity to recoup some compensation from central government.

3.44 **SA Findings:** The SEA/SA found it difficult to determine which option is the most sustainable, the reason for this being that the extent to which the proposal complies with the SA objectives will depend on:

- a) the number of planning permission obtained for alternative sites in terms of Option 9a and the impacts that might arise from these, and
- b) the extent of sites which will be modified or revoked in terms of Option 9b.

3.45 The SEA/SA also assumed for Option 9b that there would be no “trade off” with operators in the provision of alternative sites. If so, Option 9b would be less likely to result in environmental impacts elsewhere as compensation would be through financial mechanisms rather than the granting of alternative permissions. On the other hand, this could have an impact on economic objectives. Detailed discussions need to take place with operators to determine the impact of Option 9b, and whether it unfairly prejudices some businesses more than others. Both options however support opportunities to protect and conserve sites of environmental interest. The Paper states that there are some 70 Regulation 63 sites which have the potential to negatively impact on the Somerset Levels and Moors SPA.

3.46 It should be noted that based on the Draft National Planning Policy Framework Option 9a would not comply with national government guidance which states that local planning authorities should “not identify sites or extensions to existing sites for peat extraction” and should “not grant planning permission for peat extraction from new or extended sites” in accordance with targets for England to switch to using only peat free growing media and soil improver products by 2020.¹³

Option 10a, b and c (now Issue P3, options a, b and c):

3.47 Three options are presented which explore retaining or revising the existing reclamation framework for peat reserves and restoration options:

Option 10a: The framework for reclamation included in the Mineral Local Plan is still relevant and should continue to guide the type of restoration and afteruse of sites.

Option 10b: A framework for reclamation allows the industry and community to work towards a positive landscape and range of after uses in the area, but the Framework in the Local Plan needs to be

¹³ Draft National Planning Policy Framework, CLG, July 2011

revised to reflect changes in the industry and opportunities such as biodiversity ambitions of the Natural Environment White Paper.

Option 10c: Restoration options should not be prescriptive and should allow for a variety of beneficial land uses. It should be the responsibility of the developer to demonstrate the benefits of the restoration and after-use scheme.

3.48 **SA Findings:** It is likely from the SEA/SA review that Option 10b is the most sustainable option however further information is required as to the likely differences between the existing and proposed framework and how concerns over mismatches between adjacent landuses can be addressed. A framework approach would be beneficial if a holistic approach is taken to proposals, with a unified maintenance/management plan potentially with an extended aftercare period (beyond the statutory five years stipulated by government). Proposals will need to ensure that measures are in place to address flood protection and water storage concerns. It will also be important to ensure that proposals seek to achieve a positive gain towards reducing the carbon footprint and traffic on roads which are generally of a poor quality and unable to take heavy loads.

3.49 It will be important to ensure that activities promoting nature conservation and enhancing wildlife conservation, agriculture or forestry and land and water based activities do not conflict with the wildlife interest and quiet nature of the area, and the potential benefits to the environment, local communities and economy are maximised in a sustainable manner.

Option 11a, b and c (now Issue BS1, options a (altered) and b. Option 11c removed):

3.50 The Council has presented three options which consider supplying local stone to meet local demand:

Option 11a: Production of supplementary planning guidance including information on the types of building stone, possible sources of building stone, availability of stone types, reserves in the county, end uses and information should be provided by applicants etc.

Option 11a (revised option): Affirm the importance of building stone for maintaining local character and develop policy in support of new building stone quarries where a need for the stone can be demonstrated.

Option 11b: Diversification of activities and/or products from building stone quarries to enhance the economic viability, as long as impacts can be mitigated and managed at acceptable levels e.g. aggregate production, reconstituted stone, storage and reworking of salvaged natural stone, products developed for sale beyond the local market

such as kitchen worktops or fireplaces. It is important to note that activities permitted by a planning permission are monitored by the planning authority to ensure compliance.

Option 11c: Adopt and use a Local Development Order for the small scale working and development of key building stones in Somerset where a demonstrable need arises e.g. maintenance of an important building

- 3.51 **SA Findings:** The SEA/SA considers that all options; (Option 11a b and c are sustainable supporting the conservation and restoration of the built heritage through locally sourced material.
- 3.52 Option 11a the production of supplementary planning guidance, should have a positive effect on SEA/SA Objective 2 (landscape/built heritage) and is likely to provide clear guidance on the sourcing of appropriate local stone to retain, conserve and enhance the local vernacular of buildings and features within the landscape. There are a number of uncertain effects on the remaining SEA/SA Objectives (environment, natural resources, human health/amenity and economic growth) which will be dependent on what the SPD states. It should be noted that the SPD is not supposed to provide new substantive policy; it should be linked to an overarching policy advice in the Core Strategy.
- 3.53 Option 11a (revised) to develop a policy in support of new building stone quarries where a need for the stone can be demonstrated would have a positive effect on SEA/SA Objective 5 (greenhouse gas emissions) and SEA/SA Objective 9 (economic growth). It would however have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been restored/are overgrown by vegetation or where new sites need to be considered. There are also a number of uncertain effects on the environmental, natural resources and human health/amenity objectives.
- 3.54 Option 11b sets out a clear policy steer, and is likely to generate positive effects associated with economic growth, supporting existing and new business investment and generating employment if diversification is encouraged, however it is unclear to what output levels such activities will be encouraged, and as such the level of growth, employment opportunities and the possible effects on competitors elsewhere. Equally there are likely to be positive effects associated with greenhouse gas emissions since stone will be locally sourced rather than imported from elsewhere. This option will have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been restored or are overgrown by

vegetation. There are also a number of uncertain effects on the remaining environmental, natural resources and human health/amenity objectives on the basis that a number of the quarries are located close to settlements and could generate noise, dust and contribute to air pollution as well as issues associated with the specific nature of each site.

- 3.55 Option 11c would create small business and employment opportunities, although care needs to be taken to ensure that adjacent business are not displaced and the impacts on the local community and surrounding environment are mitigated. In addition, material would be locally sourced, minimising greenhouse gas emissions. This option will have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been restored or are overgrown by vegetation. There are also a number of uncertain effects on the environmental, natural resources and human health/amenity objectives. As the Paper states careful consideration must be given to proposals on an individual basis ensuring the necessary mitigation measures are in place to minimise any impacts. The importance of the site for current uses must also be considered, for instance it may be designated an SSSI or a RIG.
- 3.56 The SEA/SA agrees with the Paper that controls should be in place to monitor environmental effects and ensure that limits associated with the method of working and annual output are put in place prior to work commencing.

GENERAL COMMENTS

- 3.57 Whilst the SEA/SA may not have been able to identify the most sustainable choice for a number of options; either based on a lack of evidence/certainty or because the options were very similar or because different options have different advantages and disadvantages, it is considered that the Minerals Options Paper, July 2011 is moving in the right direction. Options within the Options Paper are striving to tease out a number of complex issues raised through already extensive consultation in order to address the principles of sustainable development. It explores innovative ways in which to promote alternative modes of transport, achieve long term restoration and after use, and control the output of materials without detriment to the environment, local communities and use of non-renewable resources.
- 3.58 The SEA/SA considers that there are various points of qualification required to ensure that the reader understands each issue in context. Future documents should refer to the scoping report and the background issues papers should be submitted as appendices to the

Options Paper. The SEA/SA also suggests that where references are made to the previous Local Plan, further information should be provided on the previous policy and supporting text, particularly where criticisms have been voiced over the success of a particular policy i.e. Policy M44.

NEXT STEPS

- 3.59 Following the consultation stage on the Minerals Options Paper, the Council will take into account comments received both through consultation and through the SEA/SA process, and prepare the Minerals Core Strategy Pre Submission Document. This document will be subject to a further SEA/SA and will also be made available for comment.
- 3.60 Further to consultation on the Minerals Core Strategy and accompanying SEA/SA on the Pre Submission Document, comments will be received and a Submission Core Strategy prepared. Both documents will be submitted to the Secretary of State for review before being adopted.

Appendix I
Detailed Appraisal of the Vision, Plan Objectives and Options

Appraisal of the Vision, Objectives and Options

This section presents the appraisal of the vision, plan objectives and each of the options detailed in the tables below. The symbols employed in the Tables are detailed below:

Symbol	Likely effect on the SA Objective
++	Strongly supports the sustainability objective
+	Supports the sustainability objective
0	Has no impact on the sustainability objective
-	Works against the sustainability objective
--	Works strongly against the sustainability objective
?	Has an unknown or uncertain effect on the sustainability objective
+ / -	Has mixed effects on the sustainability objective

Vision

Vision:		
To provide a sustainable supply of minerals to meet society's needs without unacceptable detriment to the environment or the communities in Somerset.		
SA objective	Option I	Comments
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	+	The vision seeks to promote mineral planning in a sustainable way which protects the natural and built environment
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	+	
3. To maintain and improve ground and surface water quality	+	
4. To maintain and improve air quality	+	
5. To address the causes of climate change through reducing greenhouse gas emissions	+	
6. To limit vulnerability to flooding taking account of climate change	+	It is assumed that reference to achieving a sustainable supply of minerals and the need to protect the environment will reduce greenhouse gas emissions and limit vulnerability to flooding

7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	+?	It is assumed that reference to “unacceptable detriment...to communities” includes human health and overall quality of life.
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+?	The vision advocates a sustainable supply of minerals which it is assumed will result in the promotion of alternative aggregates, efficient use of land, avoidance of sterilisation and encouragement of developers to take responsibility for waste processing.
9. To contribute to economic growth and diversity	+	The vision supports a sustainable supply of minerals and therefore continued economic growth.
10. To conserve and enhance soil quality	+	The vision seeks to protect the natural environment including soil quality.
<p>Summary:</p> <p>The proposed vision is in accordance with sustainability principles. It seeks to protect the environment as well as communities. <i>It is recommended however that the vision is strengthened by referring to the need to “<u>ensure the sustainable supply and use of minerals</u>”, thereby covering any potential concerns relating to the protection of the primary resource and the need to promote substitute, secondary and recycled materials.</i> It should be noted that the document needs to give clear guidance on what would be acceptable and what would be unacceptable; linked back to the vision.</p>		

Objectives

Plan Objectives	SA Objectives										
	1. Protect /enhance geodiversity/biodiversity	2. Protect/enhance landscape/built heritage	3. Maintain and improve ground/surface water quality	4. Maintain/improve air quality	5. Reducing greenhouse gas emissions	6. Limit vulnerability to flooding	7. Minimise risks to human health/amenity	8. Minimise consumption of natural resources	9. Contribute to economic growth	10. Conserve and enhance soil quality	Commentary
Objective A	0	0	0	0	0	0	0	+	+	0	Objective A encourages the sustainable use of the materials (SEA/SA Objective 8) and supports continued economic growth (9).
Objective B	+	+	?	?	+	?	0	0	+	+	Objective B seeks to achieve an appropriate balance between environmental protection and economic growth (SEA/SA Objective 1,2 and 9) which indirectly should have a positive effect on flooding, water, air and soil quality (SEA/SA Objectives 4, 5, 6 and 10).
Objective C	0	0	0	+	+	0	+	+	+	0	Objective C supports sustainable resource management (SEA/SA Objective 8) which may indirectly reduce greenhouse gas emissions (SEA/SA Objective 5) improve air quality (SEA/SA Objective 4) and have a positive effect on human health (SEA/SA Objective 7). It also supports continued economic growth (SEA/SA Objective).
Objective D	+	0	0	+	+	0	+	0	+/	0	Encouraging alternative modes of transport by which to export material could improve tranquillity (SEA/SA Objective 1), air quality (SEA/SA Objective 4) and reduce greenhouse gas emissions (SEA/SA Objective 5) as well as indirectly

Plan Objectives	SA Objectives										Commentary
	1. Protect /enhance geodiversity/biodiversity	2. Protect/enhance landscape/built heritage	3. Maintain and improve ground/surface water quality	4. Maintain/improve air quality	5. Reducing greenhouse gas emissions	6. Limit vulnerability to flooding	7. Minimise risks to human health/amenity	8. Minimise consumption of natural resources	9. Contribute to economic growth	10. Conserve and enhance soil quality	
											having a positive effect on human health/amenity (SEA/SA Objective 7). This objective could achieve mixed effects on economic growth SEA/SA Objective 9 (economic growth); whilst it may support larger quarries it may reduce competition from smaller quarries which may not have the necessary infrastructure or capital to invest in alternative transport modes.
Objective E	+	+	?	?	?	?	?	0	+	+	This Objective will achieve short to medium term benefits for the minerals industry and potentially further economic benefits thereafter, depending on the nature of restoration proposals recommended (SEA/SA Objective 9). There are also likely to be long term positive effects on the environment (SEA/SA Objectives 1 and 2) which should also have positive indirect effects on SEA/SA Objective 3, 4, 5, 6, 7, and 10 (flooding, water, air/greenhouse gas emissions and soil quality) through site restoration as well as positive effects on SEA/SA Objective 7 (human health).
Objective F	+	+	?	?	?	?	+	0	?	+	There are likely to be positive effects on SEA/SA Objective (1, 2 and 7 (geodiversity, biodiversity, landscape character and human

Plan Objectives	SA Objectives										
	1. Protect /enhance geodiversity/biodiversity	2. Protect/enhance landscape/built heritage	3. Maintain and improve ground/surface water quality	4. Maintain/improve air quality	5. Reducing greenhouse gas emissions	6. Limit vulnerability to flooding	7. Minimise risks to human health/amenity	8. Minimise consumption of natural resources	9. Contribute to economic growth	10. Conserve and enhance soil quality	Commentary
											health/amenity) through a collaborative approach to developing reclamation proposals and it is anticipated that there will also be indirect positive effects on SEA/SA Objectives 3, 4, 5, 6, 7 and 10 (water, soil, air quality/ greenhouse gas emissions as well as flooding). It is uncertain whether any business/employment opportunities will be generated as a result of this proposal SEA/SA Objective 9 (economic growth). One issue of concern however is how such proposals will be funded and the after care costs involved.
Objective G	0	0	0	0	0	0	0	+	?	0	Objective G supports SEA/SA Objective 8 (natural resources) through the unnecessary sterilisation of mineral resources by other developments, but as a result this could stifle other development opportunities SEA/SA Objective 9 (economic growth).
Summary											
The proposed Plan Objectives were found to be compatible with the SEA/SA Objectives. The Plan Objectives seek to protect the environment (Plan Objectives B, E and F), support economic growth (Plan Objectives A and B) whilst ensuring that natural resources are protected for future generations (Plan Objective C and G). The Plan Objectives also seek through (Plan Objective E and F) to make a positive contribution to the environment											

Plan Objectives	SA Objectives									
	1. Protect /enhance geodiversity/biodiversity	2. Protect/enhance landscape/built heritage	3. Maintain and improve ground/surface water quality	4. Maintain/improve air quality	5. Reducing greenhouse gas emissions	6. Limit vulnerability to flooding	7. Minimise risks to human health/amenity	8. Minimise consumption of natural resources	9. Contribute to economic growth	10. Conserve and enhance soil quality
	<p>through specific restoration proposals associated with active and dormant/abandoned sites.</p> <p>In addition, the SEA/SA suggests that Plan Objective B should be reinforced to ensure that where there are potential adverse environmental impacts resulting from the supply of minerals, proposals for extraction, transportation and restoration are sensitively planned and managed. The SEA/SA considers that Plan Objective D makes a positive contribution by reducing mineral transportation by road. This has the potential to reduce the negative effects of</p> <p>HGV movements on small roads including improving road safety, reducing air pollution, noise pollution and greenhouse gas emissions in line with Government guidance to reduce greenhouse gas emissions and adapt to climate change. Within the Plan Objectives greater recognition should also be given to the impacts of the mineral industry (i.e. dust, noise and particle emissions) on human health associated with onsite activity such as blasting and vibration. For example, Objective B could include mid-sentence the phrase “safeguarding the amenity of local communities”.</p>									

Issue 1 (now AI): Crushed Rock Landbank

Option 1a: Permitted reserves should be identified to meet demand for the lifetime of the plan plus 15 years i.e. a total of 32 years from 2011 at 11.7 Mt/year (average supply rate 1999-2009) Landbank requirement = 374 MT from 1 January 2011 (Scenario 4 in Table 2 above)

Option 1b: A landbank of 15 years should be maintained at 13.41 Mt/year (sub-regional apportionment). Landbank requirement = 201 Mt (Scenario 2 in Table 2 above)

SA objective	Option 1a	Option 1b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	?
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	?	?
3. To maintain and improve ground and surface water quality	?	?
4. To maintain and improve air quality	?	?
5. To address the causes of climate change through reducing greenhouse gas emissions	+	+
6. To limit vulnerability to flooding taking account of climate change	?	?
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	+
9. To contribute to economic growth and diversity	++	++
10. To conserve and enhance soil quality	?	?

Option 1a:

Significant positive effects: Significant positive effect on SEA/SA Objective 9 (economic growth) will be generated providing greater security to justify capital investment over a longer timescale, supporting continued employment within the sector as well as the wider construction industry although as stated in the Options Paper, having an available known resource tied up in a few sites could stifle competition from smaller operators and drive up aggregate prices in the local market in the longer term.

Significant negative effects: None

Minor and uncertain effects: There are uncertainties associated with SEA/SA Objectives 1 (geodiversity), 2 (landscape/built heritage), 3 (ground and surface water quality), 4 (air quality), 6 (flooding), 7 (human health) and 10 (soil quality). Whilst it is assumed that progressive restoration will take place there may still be uncertain effects on the environment relating to specific sites. As a consequence the effects on the environment as well as on local communities adjacent to sites may span over a longer timescale (accepting that developers will take necessary measures to mitigate such

effects).

There may be mixed effects on SEA/SA Objective 8 (consumption of natural resources). Whilst this option would safeguard reserves from sterilisation by other developments over a long timescale, the availability of a non-renewable resource may counter Government's drive towards increasing the supply of recycled/substitute materials, and minimising the consumption of a primary resource especially if an oversupply leads to lower prices. Equally the longer timescale may hamper other development opportunities.

It is likely that there may be minor positive effects on SEA/SA Objective 5 (greenhouse gas emissions) through the retention of a local supply of material, reducing levels of importation of materials by road.

It is uncertain why the Options Paper has proposed an option of a landbank of 32 years as opposed to one of 27 years covering the plan period (2011-2028), plus provision for a 10 year landbank to be in place at all times during the plan period as referred to in the strategic sites report, para 2.10.

Option 1b:

Significant positive effects: Significant positive effect on SEA/SA Objective 9 (economic growth) will be generated supporting continued employment within the sector as well as the wider construction industry. This Option has a smaller landbank however and therefore may not encourage as much investment and market confidence as Option 1a.

Significant negative effects: None

Minor and uncertain effects: There are uncertainties associated with SEA/SA Objectives 1 (geodiversity), 2 (landscape/built heritage), 3 (ground and surface water quality), 4 (air quality), 6 (flooding), 7 (human health) and 10 (soil quality). Whilst it is assumed that progressive restoration will take place there may still be uncertain effects on the environment relating to specific sites. As a consequence the effects on the environment as well as on local communities adjacent to sites may span over a longer timescale (accepting that developers will take necessary measures to mitigate such effects).

There may be positive effects on SEA/SA Objective 8 (consumption of natural resources). This Option by contrast to Option 1a seeks to ensure that there is balance between a steady supply of material supporting economic growth and investment, against a need to encourage alternative (potentially cheaper and more sustainable substitutes) minimising consumption of non-renewable primary minerals.

This option allocates a landbank over a smaller timescale (15 rather than 32 years as stipulated under Option 1a), although it is based on an average production rate of 13.41 Mt/year by comparison with 11.7 Mt/year which is considered a more realistic estimate based on average sales.

Summary

The SEA/SA found it difficult to determine which option was the most sustainable and has made a number of assumptions. Both options indicate a landbank over and above that which has been identified in Minerals Policy Statement 1: Planning and Minerals which states under para 4.1 that "MPAs should use the length of the landbank in its area as an indicator of when new permissions for aggregates extraction are likely to be needed. The

landbank indicators are at least 7 years for sand and gravel and at least 10 years for crushed rock. A longer period may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets, and productive capacity of permitted sites. A landbank below these levels indicates that additional reserves will need to be permitted if acceptable planning applications are submitted. Because individual sites, when permitted, need sufficient reserves to be economically viable, consideration of the landbank needs to be flexible enough to allow for this. A large existing landbank bound up in very few sites should not be allowed to stifle competition.”¹⁴ This last point is reiterated in MPS I Annex I ¹⁵ which stresses that steps should be taken to avoid and reduce excessive landbanks. “New planning permissions should only be given where it can be shown that demand could not be met from the existing permitted reserves” and that the industry is encouraged to agree voluntarily to the revocation of planning permissions at sites that are unlikely to be worked again. MPSI also states that “MPAs should consider and report on the need to review policies in their LDDs as part of their annual monitoring report to the Secretary of State... If review and updating takes place regularly then maintaining a landbank beyond the end of the plan period is not an issue

Both options are sustainable in terms of ensuring that materials are available locally and would generate significant positive effects in terms of meeting economic growth, providing a steady supply of materials for the construction industry, enabling it to meet society’s needs. Equally both options seek to maintain low levels of greenhouse gas emissions, minimising the importation of materials from elsewhere which is unsustainable, particularly when large volumes and long distances are involved. However, where the tensions lie are between the need to safeguard and provide a steady supply of minerals, and the need to maintain Somerset’s distinctive character and protect its natural resources.

Although Option 1a provides longer term security for reserves to justify capital investment and supports economic growth, it may delay environmental gains resulting from the knock on effects of finding permitted reserves elsewhere. Whereas Option 1b may achieve greater environmental gains over potentially a shorter timescale (albeit that such gains will be influenced by the nature of the site). In addition, due to the size of the proposed landbank, Option 1a would safeguard reserves from sterilisation by other developments over a long timescale, the availability of a non-renewable resource may counter Government’s drive towards increasing the supply of recycled/substitute materials and minimising the consumption of a primary resource especially if an oversupply leads to lower prices potentially stifling competition. Equally the longer timescale may hamper other development opportunities.

The SEA/SA considers that both options should include a clause which seeks a voluntary revocation or prohibition of sites where a net environmental gain can be achieved and the site is not expected to work again. When considering both options the Council should review and update the Plan on an annual basis in case there is a potential shortfall in supply. *The SEA/SA suggests that the Paper would benefit from an explanation as to why these two options were selected.*

¹⁴ Department of Communities and Local Government, (November 2006) Minerals Policy Statement I: Planning and Minerals

¹⁵ Department of Communities and Local Government, (November 2006) Minerals Policy Statement I: Planning and Minerals

Issue 2 (Now A4): Shortfall in Sand and Gravel

Option 2a: Retain the mineral designated areas around Whiteball to help meet the apportionment in conjunction with Devon

Option 2b: Review potential Areas of Search or Preferred Areas through a call for sites from the minerals industry

Option 2c: Criteria based policy approach for new sand and gravel reserves

SA objective	Option 2a	Option 2b	Option 2c
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	-?	+
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	?	-?	+
3. To maintain and improve ground and surface water quality	?	-?	+
4. To maintain and improve air quality	?	-?	+
5. To address the causes of climate change through reducing greenhouse gas emissions	+	-?	+
6. To limit vulnerability to flooding taking account of climate change	?	?	+
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	-?	+
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	+/-	+
9. To contribute to economic growth and diversity	+	+/-?	+
10. To conserve and enhance soil quality	?	-?	+

Option 2a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects on SEA/SA Objectives 1, 2, 3, 4, 6 and 10, (environment) as well as potential impacts on communities living in close proximity to Whiteball if mineral designated areas are worked, SEA/SA Objective 7 (human health/amenity), albeit that such effects are likely to be more limited locally and it is assumed the necessary mitigation measures are already in place.

It is likely that there may be minor positive effects associated with SEA/SA Objective 5 (greenhouse gas emissions) resulting from the extraction of sand and gravel in close proximity of an existing quarry and its associated infrastructure. There will be positive effects on SEA/SA Objective 9 (economic growth) through the retention of a local labour force within the vicinity of the existing quarry and the possible generation of further jobs.

There will be mixed effects on SEA/SA Objective 8 (natural resources) through the protection against sterilisation of land defined as mineral designated areas, and the

extraction of further non-renewable resources.

Option 2b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are uncertainties with SEA/SA Objective 6 (flooding) associated with the indirect impacts of climate change on land use and management, and subsequently on river flows and aquifers. Although sand and gravel extraction is defined as ‘water compatible development’ in PPS25,¹⁶ policy guidance still requires the submission of Flood Risk Assessments at planning application stage in areas of flood risk. The supplement to PPSI (Planning and Climate Change)¹⁷ aims to ensure that Core Strategies and DPDs take account of climate change when identifying land for development by considering the six factors listed under para.24.

This option potentially widens the search area for sites throughout the whole county and therefore could spread the effect of minor negative impacts on SEA/SA Objectives 1, 2, 3, 4, 6, 7 and 10 (environment and human health/amenity), although given the uncertainty over Devon’s shortfall, the extent and scale of such effects is unknown. It is likely that there may be minor negative effects associated with SEA/SA Objective 5, (greenhouse gas emissions) resulting from the extraction of sand and gravel since quarrying activities could be widespread and may not be able to utilise existing infrastructure, although it has to be accepted that such impacts will be less than importing material from out of county.

There may be mixed /uncertain effects on SEA/SA Objective 9 (economic growth). Whilst the retention of quarrying and an existing labour force within the county is a positive step there may be negative impacts on inward investment and the broadening of the economic base, particularly in areas or villages where recreation and tourism are important to the local economy. Such effects will be dependent on the individual site locations and the availability or proximity of existing plant infrastructure for mineral working, and relationships with major transport networks, existing local road conditions and links to main markets.

There will also be mixed effects on SEA/SA Objective 8 (natural resources) through the protection against sterilisation of land defined as areas of search or preferred areas, and the extraction of further non-renewable resources.

Whilst the SEA/SA agrees that an appraisal of sites would be required to determine their suitability and therefore define Areas of Search or Preferred Areas, a strategy needs to be in place (depending on where sites are identified) to concentrate extraction to a limited number of sites within a particular location thereby limiting impacts elsewhere and minimising the need for extensive mitigation measures to protect the local environment and communities.

Option 2c:

¹⁶Department of Communities and Local Government (March 2010) *Planning Policy Statement 25: Development and Flood Risk, Annex D*

¹⁷Department of Communities and Local Government (December 2007) *Planning Policy Statement: Planning and Climate Change, Supplement to Planning Policy Statement 1*

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: It is likely that a criteria based policy may have a minor positive effect on SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, (environment, natural resources, human health/amenity and economy) ensuring that careful consideration is given to all impacts when planning applications are submitted. The SEA/SA reviewers agree that this approach should work in tandem with Option 2a and 2b depending on whether the identified shortfall is met and whether additional sites come forward with net environmental gains over and above those identified through Option 2a and Option 2b.

Summary:

MPS I identifies that there should be a landbank of at least 7 years for sand and gravel. However based on the Options Paper there is likely to be a shortfall identified by Devon post 2019. It is unclear from the text what the shortfall will be, and what the implications are for Somerset County Council. Until this is resolved the SEA/SA considers that it is logical that all the options are retained to achieve the most sustainable option, considering firstly the retention of mineral designated areas around Whiteball, secondly potential new sites and lastly a criteria based policy to sift suitable sites which may have greater environment gains than sites identified in the Areas of Search or Preferred Areas.

Whilst the SEA/SA would support opportunities to concentrate activity within distinct areas, where there is the existing infrastructure in place, promoting opportunities for further investment and the retention of employees, careful consideration needs to be given to the impact of proposals on the local environment and communities, particularly cumulative effects generated from additional sites.

All the options presented would meet objectives within MPSI which states that where a shortfall needs to be addressed this “*should, where practicable, be made up for elsewhere in the same region*” para 3.4. Equally Option 2c reflects Government guidance which states under Draft National Planning Policy Framework - para 102 that planning applications need to be assessed against environmental criteria to determine whether proposals have “*unacceptable adverse impacts on the natural and historic environment or human health, including from tip- and quarry-slope stability, differential settlement of quarry backfill and migration of contamination from the site.*”

The SEA/SA recommends that there should be some consistency in the terminology used for both Option 2a and 2b; Option 2a refers to Mineral Designated Areas whilst Option 2b refers to Areas of Search or Preferred Areas. MPSI Best Practice states that preferred areas are where resources are known, whilst areas of search are broad areas where the knowledge of resources is less certain.

Issue 3 (subsequently removed): Constraining supplies to a specific need

Option 3a: Protect reserves to ensure they are used to meet the need for which they were permitted e.g. Additional reserves at rail-linked quarries to supply predominately rail-transported materials and Moons Hill to use the higher PSV materials for road surfacing.

Option 3b: There is no need to protect reserves to be used for the need for which they were permitted. Market forces will ensure that the additional reserves will be directed to meet that need and by restricting the end-use the operator will not have sufficient flexibility to meet changing market demands.

SA objective	Option 3a	Option 3b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	0	0
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	0	0
3. To maintain and improve ground and surface water quality	0	0
4. To maintain and improve air quality	0	0
5. To address the causes of climate change through reducing greenhouse gas emissions	+	-
6. To limit vulnerability to flooding taking account of climate change	0	0
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	0	0
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+	-
9. To contribute to economic growth and diversity	+/-	+/-
10. To conserve and enhance soil quality	0	0

Option 3a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: None

This proposal will generate positive impacts on SEA/SA Objective 8 (natural resources) by controlling the reserves to the need to which they are permitted and ensuring resource efficient as well as encouraging further rail haulage at two of the strategic sites (Torr Works and Whatley Quarry); SEA/SA Objective 5 (greenhouse gas emissions).

There will however be mixed effects on SEA/SA Objective 9 (economic growth). The proposal could still generate an unfair market advantage for the three strategic site operators, particularly Torr Works and Whatley Quarry. On the other hand this would enable supplies to the construction industry at lower cost.

Option 3b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: None

This option could result in a negative impact on SEA/SA Objective 5 (greenhouse gas emissions) resulting from a lack of control over supplies and inequalities in where and how materials are transported within and out of the county.

In addition, this option could generate negative impacts associated with SEA/SA Objective 8 (natural resources) since there will be no protection of reserves for the purpose for which they were permitted. It may result in some sites, such as Moon Hill quarry, becoming exhausted earlier, its products used for another purpose, resulting in the unnecessary importation of additional PSV materials from elsewhere.

There will also be mixed effects on SEA/SA Objective 9 (economic growth) due to competition from other operators both within and outside the county. The proposal could generate an unfair market advantage for the three strategic site operators, particularly Torr Works and Whatley Quarry, enabling the two operators to lower costs for aggregates based on lower transportation costs and reduce competition particularly from smaller operators. Once competition has reduced such operators may be able to increase prices over the long term.

Around 5 million tonnes crushed rock aggregate was exported by rail in 2009 from the South West, of which the majority was supplied by Torr Works and Whatley Quarry. Both quarries have planning permissions which impose a limit on the amount of aggregate transported by road totalling 3 and 4Mt respectively. Furthermore, both quarries could use their rail haulage links to supply material locally imposing further market pressures on other competitors, and as stated in Somerset's Strategic Site Assessment, "if a quarry ceases to supply in certain area possibly due to market competition the needs of that area may be met by an alternative site."¹⁸

Summary:

The SEA/SA considered that Option 3a is the most sustainable option, since it seeks to ensure that careful consideration is given to the output and supply of material. This option promotes the use of rail haulage at Torr Works and Whatley Quarry, reducing greenhouse gas emissions. It ensures that the high quality outputs from Moons Hill quarry are not used for unnecessary purposes. It also aims to maintain competition amongst other operators, although this will have to be carefully monitored to ensure that smaller operators are not unfairly prejudiced by such proposals. The SEA/SA considers that opportunities could be explored with smaller operators to encourage a reduction in their greenhouse gas emissions through for instance back hauling by utilising return journeys by HGVs to transport waste reducing the necessity to use additional road trips to import materials to quarries at a later date (i.e. the processing of secondary or recycled materials)

¹⁸ Land Use Consultants, (February 2011) Somerset Strategic Sites Assessment – Confidential Final Report

Issue 4 (now Issue A2): Should there be a limit on the quantity of additional reserves that can be permitted where a need that cannot be met from other sources is identified when the landbank is excessive?

Option 4a: No. A proposal for additional reserves should be considered on its own merits. The size of the proposal is irrelevant as long as the environmental and local community impacts can be mitigated or are not significant. To limit the size of the additional reserves would have an unreasonable economic impact on the applicant.

Option 4b: Yes. When the landbank is already excessive the addition should be limited, for example to 25 years supply to meet the specified need.

SA objective	Option 4a	Option 4b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	+?
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	?	+?
3. To maintain and improve ground and surface water quality	?	+?
4. To maintain and improve air quality	?	+?
5. To address the causes of climate change through reducing greenhouse gas emissions	?	+?
6. To limit vulnerability to flooding taking account of climate change	?	+?
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	+?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	?	+?
9. To contribute to economic growth and diversity	+?	?
10. To conserve and enhance soil quality	?	+?

Option 4a:

Significant positive effects: None.

Significant negative effects: None.

Minor and uncertain effects: Whilst it is accepted that such effects should not be significant there are uncertain effects on SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10, (covering environment, impacts on human health and amenity). The impacts on SEA/SA Objectives will to a certain extent be dependent on the nature of the site and its proximity to sensitive receptors, as well as the scale of extraction proposed, whether the site is close to local markets by rail, whether it lies in areas susceptible to flooding and the timescale that such sites come forward

The SEA/SA considers that minor positive opportunities may arise in terms of SEA/SA

Objective 9 (economic growth) through the creation of local jobs and supply of minerals to support the economy.

Option 4b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: The SEA/SA considers that the effects on SEA/SA Objective 9 (economic development) are uncertain since it is unclear where additional reserves will be, as well as local markets.

The impacts on the SEA/SA Objectives of Option 4b will to a certain extent be dependent on the nature of the site and its proximity to sensitive receptors, as well as the level of extraction. However this Option offers greater certainty since it proposes a greater constraint on potential sites which may come forward and therefore may have a potentially minor positive effect on limiting the effects of development on SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10 (covering environment, impacts on human health and amenity), albeit that impacts on human health and amenity are likely to be managed through site specific controls relating to output and working practices.

Summary:

The SEA/SA considers that Option 4b is the most sustainable option based on the proposal to constrain the number of additional sites which come forward and the potential positive effect this could generate on environmental objectives, human health and amenity. It should be noted that the following issues need to be taken into account when assessing whether additional reserves are viable options:

1. In developing a policy careful consideration should be given to whether, as additional reserves come forward, there are net environmental gains over and above other sites, and whether there can be a “trade-off” (or voluntary revocation or prohibition) of inactive sites, particularly where sites are already within the landbank.
2. Additional reserves may be considered where it can be demonstrated that those permissions and allocations within the proposed landbank would not maintain the level of provision and production capacity proposed of either Option 1a (11.7 Mt/year) or Option 1b (13.47 Mt/year), and where it satisfies an anticipated need to maintain an adequate landbank (including for specific major projects).
3. Consideration must be given to unexpected circumstances or unforeseen proposals being put forward.
4. The paper may need to consider a clause which seeks to ensure that the applicant is required to provide evidence to explain reasons why the need for the mineral could not be met from reserves on existing permitted or allocated sites.

Issue 5 (now Issue A3): Maintaining competition

Option 5a: Continue policy M35 part 2 “Proposals for the extraction of crushed rock will not be permitted unless the proposal will result in significant benefits to the environment or local communities without significantly increasing the size of the landbank”. A significant increase could be an increase greater than the recent annual sales or the annual apportionment.

Option 5b: A proposal that will increase the landbank but that results in significant benefits to the local community or the environment and is proportionate to the output capacity of the site will be permitted. Proportionate could mean an addition of not more than 10 or 15 years output capacity, or recent annual sales if output capacity is unlimited. Alternatively the addition might be linked to the site’s reserves such that the total reserves following the addition do not exceed 25 years’ worth of supply.

Option 5c: There is no need to make provision for small additions to the landbank when the landbank is excessive.

SA objective	Option 5a	Option 5b	Option 5c
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	?	?
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	?	?	?
3. To maintain and improve ground and surface water quality	?	?	?
4. To maintain and improve air quality	?	?	?
5. To address the causes of climate change through reducing greenhouse gas emissions	?	?	?
6. To limit vulnerability to flooding taking account of climate change	?	?	?
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	?	?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+	?	?
9. To contribute to economic growth and diversity	+	+	-
9. To conserve and enhance soil quality	?	?	?

Option 5a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects:

Whilst this option states that there will be significant benefits to the local community and environment, (even if these are only achieved in the long term) the SEA/SA considers that there are uncertainties associated with SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10, (covering environment, impacts on human health and amenity, and natural resources) since the impacts on SEA/SA Objectives will to a certain extent be

dependent on the nature of the site and its proximity to sensitive receptors, as well as the scale of extraction proposed, whether the site is close to local markets by rail, whether it lies in areas susceptible to flooding and the timescale that such sites come forward. If the landbank does concentrate on a small number of large sites (which may occur based on para 4.57 of the paper) there may be negative cumulative effects on the environment and communities locally, conversely by concentrating development within a certain location the impacts will be contained and mitigation measures could be proposed which take a holistic approach to a specific area.

The SEA/SA considers that there may be potentially minor positive impacts in terms of SEA/SA Objective 9 (economic growth) since this option aims to retain small quarry sites by providing a mechanism for small additions when the landbank is already sufficient and /or excessive. Depending on the limits placed on reserves available at each site this option could also generate positive impacts associated with SEA/SA Objective 8 (natural resources) since there could be a reduction in the landbank size in the long term as not all sites will hold maximum reserves at the same time. In the short term however there may be a landbank increase. It will be important to define policy carefully to ensure that excessive landbanks don't arise.

Option 5b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: It is uncertain whether the policy will generate positive or negative effects on SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10, (covering environment, impacts on human health and amenity and natural resources) since the impacts on SEA/SA Objectives will to a certain extent be dependent on the nature of the site and its proximity to sensitive receptors. If this proposal does widen opportunities for smaller scale operators to increase capacity, then the scale of effects on the environment and local communities could be spread over a wider area.

The SEA/SA considers that this option would have minor positive effects on SEA/SA Objective 9 (economic growth) potentially supporting opportunities for further investment in strategic sites, as well as smaller sites, based on the clause stating that the proposal should be "proportionate to the output capacity or recent annual sales of the site". This would thereby encourage competition, retain and potentially increase employment opportunities and encourage further investment including within smaller non-strategic quarries.

Option 5c:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: It is uncertain whether this proposal would generate positive or negative effects on the environment and local communities covered by objectives SEA/SA Objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10 (covering environment, impacts on human health and amenity, and natural resources). This option would result in a potentially minor negative effect on SEA/SA Objective 9 (economic growth). Whilst the proposal could stifle investment and competition, especially amongst smaller non strategic local operators, it could be argued that the proposed landbank already exceeds Government guidance and is therefore sufficient to create confidence in

investors.

Summary:

It is difficult to ascertain whether any of the options are sustainable. Option 5a could result in the concentration of effects, whilst conversely Option 5b could diffuse the effects depending on the location of sites and their proximity to each other, as well as to sensitive receptors.

Both Option 5a and 5b refer to significant benefits to the local community or the environment with specific examples under para 4.60 covering for instance provision of highway improvements, relocating of processing plant to reduce impacts on local populations or environment, improved landscaping and restoration scheme, the relinquishment of planning permissions at dormant sites or improved energy efficiency. Whilst these would be positive in SEA/SA terms, this may be at the expense of other impacts arising from the proposals themselves (it is unlikely that minerals proposals would have no negative effects on the environment or communities), which would only be known when specific proposals come forward. In addition, whilst Option 5c prevents further development opportunities it does seek to ensure that further effects on the local communities and the environment could be restricted; albeit that this may be at the cost of stifling economic growth.

Issue 6 (now Issue A5): Restoration and After Use in the East Mendips

Option 6a: Restoration and after-use of quarry sites should be determined on a site by site basis.

Option 6b: Restoration should be determined by meeting criteria defined in an agreed long term strategic scale restoration strategy for the Mendips

SA objective	Option 6a	Option 6b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	+	++
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	+	++
3. To maintain and improve ground and surface water quality	+?	+?
4. To maintain and improve air quality	+?	+?
5. To address the causes of climate change through reducing greenhouse gas emissions	+?	+?
6. To limit vulnerability to flooding taking account of climate change	+?	+?
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	+	+
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	?	?
9. To contribute to economic growth and diversity	+?	+?
10. To conserve and enhance soil quality	+?	+?

Option 6a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects associated with SEA/SA Objective 8 (natural resources) which can only be assessed on a site by site basis; for instance backfilling with inert materials may not be feasible in certain locations due to potential concerns over water contamination/flooding.

There are potential minor positive effects on SEA/SA Objective 3, 6, 9 and 10 (water, air and soil quality, flooding and greenhouse gas emissions). There is an assumption that various conditions will be introduced in terms of after use to ensure that soil quality and ground/surface water quality, remains the same or is improved. In terms of water quality this is especially important given the value of water resources in the Mendips for public water supply, and controls are in place to prevent contamination. There are likely to be positive effects on SEA/SA Objective 9 (economic growth) through after use proposals, although the type and number of employment opportunities will be dependent on the proposed after use i.e. a water sports centre promoting recreation and tourism, compared to restoring land to a wildlife reserve. Equally it is assumed that

impacts on SEA/SA Objective 4 (air quality) and 5 (greenhouse gas emissions) will be minor positive; improving once activity within the quarry ceases, however this is very much dependent on the type of after use proposed, and whether the proposal attracts visitors by car.

This Option should also have a positive effect on SEA/SA Objectives 1, 2 and 7 (covering geodiversity/biodiversity, landscape/heritage and human health/amenity); the latter as an indirect effect resulting from an improvement in air quality.

Proposals should seek, through a detailed restoration plan, to achieve positive gains for the site and surrounding area. Carefully consideration must be given to the needs of the local community in terms of restoration proposals and opportunities to expand on existing sites of nature conservation interest, as well as the creation of new sites. Care must be taken that proposals are sympathetic to the surrounding landscape character of the area. One of the disadvantages of this option (countered through Option 6b) is that it does not take a holistic view of a wider area and tackle wider cumulative effects of a number of proposals. If this option is carried forward, it is essential that there is a level of consistency in assessing each site, using the same criteria or checklist of issues.

Option 6b:

Significant positive effects: This option is likely to generate significant positive effects on SEA/SA Objective 1 and 2 (geodiversity/biodiversity and landscape/built heritage). This proposal creates significant opportunities to enhance the landscape character, support geodiversity and biodiversity proposals; creating extensive areas of landscape and wildlife corridors and potentially celebrating the industrial heritage of the area. Proposals could include informal and formal recreational activities such as rock climbing and abseiling as well as educational facilities and interpretation.

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects associated with SEA/SA Objective 8 (natural resources) which can only be assessed on a site by site basis; for instance backfilling with inert materials may not be feasible in certain locations due to potential concerns over water contamination/flooding.

As with Option 6a there are potential minor positive effects on SEA/SA Objective 3, 5, 6 and 10 (water and soil quality, flooding and greenhouse gas emissions). There is an assumption that various conditions will be introduced in terms of after use to ensure that soil quality and ground/surface water quality remains the same or is improved. In terms of water quality this is especially important given the value of water resources in the Mendips for public water supply and controls are in place to prevent contamination.

Given the scale of the proposal to develop a long term strategy for an extensive area there could be minor positive effects on SEA/SA Objective 9 (economic growth) through after use proposals, improving the economic well-being of the area and offering the potential to generate a range of new jobs, although this will be very much dependent on the lifespan of each quarry forming part of the overall strategy.

It should be noted that the paper states that such a proposal would result in the reduction of extraction in some areas, and the allocation of new areas for future extraction on one or more less sensitive areas to make up for this reduction. The SEA/SA considers that this could be a positive step, so long as the use of existing infrastructure is maximised, impacts are mitigated and the level of extraction accords with the Core Strategy. Equally it is important that by reapportioning outputs to other

locations, the overall apportionment allocated to the area is not increased; a concern expressed in the Ecosystems Approach Report to Long Term Minerals Planning in the Mendip Hills, which recognises that such a long term strategy could “increase the importance of the area for supplying aggregate.”¹⁹

Equally it is assumed that impacts on SEA/SA Objective 4 (air quality) and 5 (greenhouse gas emissions) will be minor positive; improving once activity within the quarries ceases, however this is very much dependent on the types of after use proposed, and whether the proposals attract visitors by car. Opportunities could be explored to utilise Whatley Quarry and Torr Works rail infrastructure as a more sustainable means of bringing people to the area if proposals are seeking to attract visitors.

Summary:

The SEA/SA considers that Option 6b would be more sustainable as it would take a holistic approach to long term restoration proposals within the East Mendips. The proposal will be very much dependent on the lifespan of the quarries which come forward, and as such it will be important to ensure that the proposals are not affected by on-going activity of adjacent quarries which are still active, given that the strategy looks forward some 50 years plus (for instance the cumulative effects of noise from blasting).

It will be important to ensure that climate change adaptation measures are built into proposals which allow sufficient flexibility to enable a review of proposals closer to the end of the working life of each quarry to ensure that they still meet the needs of the area in discussion with local communities, operators and NGOs. Proposals should be of a high environmental standard, applied through conditions where necessary.²⁰

In addition, there would need to be long term proposals for the maintenance and aftercare of the area, the responsibilities for which may be complex given that some sites may come forward before others. MPS²¹ states that there is a statutory five year after care period following restoration, however for some after uses it may be that there will have to be planning obligations put in place between a number of owners or operators, and Somerset County Council.

¹⁹ Custa Consulting Limited, (March 2009) An Ecosystem Approach to Long Term Mineral Planning in the Mendip Hills, Phase I: Initial Feasibility Study

²⁰ Communities and Local Government, (July 2011) Draft National Planning Policy Framework

²¹ Communities and Local Government, (November 1996) Minerals Planning Policy Guidance 7: Reclamation of Mineral Workings

Issue 7 (removed): Carbon and production of aggregates
(Replaced with Issue A6: Renewable energy generation)

Option 7a: Carbon produced per tonne of aggregate should be a consideration when determining a planning application for aggregate extraction

Option 7b: It is in the operators interests to reduce energy costs and therefore associates carbon, but it is one of many aspects to be considered by the operator in developing a viable scheme and should not be a planning matter in its own right

SA objective	Option 7a	Option 7b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	0	0
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	0	0
3. To maintain and improve ground and surface water quality	0	0
4. To maintain and improve air quality	+?	?
5. To address the causes of climate change through reducing greenhouse gas emissions	+?	?
6. To limit vulnerability to flooding taking account of climate change	0	0
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	+?	?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	?
9. To contribute to economic growth and diversity	-?	?
10. To conserve and enhance soil quality	0	0

Option 7a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: None

This option could have minor positive effects on SEA/SA Objective 4 and 5 (air quality and climate change). By introducing measures to control the carbon footprint of a quarry there is the potential to reduce carbon emissions from both on site processing and more importantly transport modes; potentially encouraging operators without rail haulage to explore alternative modes of transport rather than by HGVs. However, the option only states that it would be a consideration, and it could therefore be outweighed by other considerations when proposals come forward.

Such proposals could also have indirect minor positive effects on SEA/SA Objective 7 (human health/amenity) resulting from a reduction in air pollution.

There may be mixed effects on SEA/SA Objective 8 (natural resources) with the

potential for operators to backfill quarries with waste material on return trips depending on issues associated with contamination and flooding. However this option could result in a shift of supply by some operators utilising resources for alternative purposes which may not be sustainable.

As a consequence of this proposal, there may be minor negative effects on SEA/SA Objective 9 (economic growth) stifling competition and development as operators without railheads are unable, or find it harder to, obtain planning permissions granted to extract further aggregates.

Option 7b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: This option has a number of uncertain effects, it places the responsibility on the developer to minimise their carbon footprint, and whilst it is in their interest to be as energy efficient as possible, such costs will be weighed against other issues such as retaining a share of the local market. As such there are uncertain effects on SEA/SA Objective 4, 5, 7 and 8 (air quality, climate change, human health and natural resources), and whether there are positive or negative impacts on the SEA/SA Objectives will depend on the nature of the site and its proximity to sensitive receptors, as well as the scale of extraction proposed and whether the site is close to local markets by rail. Equally whilst this option will not stifle economic growth (SEA/SA Objective 9) nor does it encourage growth to occur.

Summary:

It is very difficult to ascertain from both options, without having any baseline information on the carbon footprint of each quarry which is the most sustainable option; although it is likely that Option 7a would provide greater certainty. If Option 7a is carried forward data should be obtained which enables comparisons to be made between sites.

Somerset County Council is producing a carbon action plan to reduce carbon emissions²² and if the Core Strategy is seeking to take a proactive approach to reducing the carbon footprint the preferred policy could introduce a condition which seeks to ensure that operators prepare carbon action plans alongside planning applications. This would encourage operators to consider reductions in their footprint including encouraging operators to backfill with secondary and recycled materials, although it should be noted that this should not stifle competition from developers without railheads.

A report produced by the British Geological Survey²³ states that transport from point of production to point of use accounts for more than 40% of total carbon emissions by the aggregates industry, and is where carbon reductions could have a significant impact. Transportation by road is becoming increasingly unsustainable and therefore maintaining strategic sites such as Torr Works and Whatley Quarry are important in reducing carbon emissions.

Careful consideration also needs to be given to market forces, whilst Torr Works and

²² Somerset County Council, (February 2008) Responding to climate change in Somerset

²³ A Bloodworth and Jo Mankelov, NERC, (2008) Strategic assessment of the carbon footprint resulting from mass flow of primary aggregate minerals in England,

Whatley Quarry currently supply aggregate to London and the South East utilising their rail heads located within their site boundaries, there may be a market shift in the future to a more local base if there is a demand from for instance from large scale projects which may result in the need to promote other alternative means of transport.

Issue A6 (additional option): Renewable energy

Option 6a: Renewable energy schemes should be encouraged where in conjunction with minerals operations to support carbon reduction

Option 6b: Renewable energy schemes should be considered separately from a minerals application

SA objective	Option 6a	Option 6b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	-?	-?
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	-?	-?
3. To maintain and improve ground and surface water quality	-?	-?
4. To maintain and improve air quality	?	?
5. To address the causes of climate change through reducing greenhouse gas emissions	+	+
6. To limit vulnerability to flooding taking account of climate change	0	0
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	+/-
9. To contribute to economic growth and diversity	+	+
10. To conserve and enhance soil quality	0	0

Option 7a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: This option could have minor negative and uncertain effects associated with SA Objectives 1 and 2 (geodiversity/nature conservation and landscape) depending on the nature and scale of the proposal put forward, i.e. landscape and visual impacts on the Mendips AONB associated with solar or wind farm applications. There are also minor negative effects associated with the impact such a proposal may have on SEA/SA Objective (water quality). There could be minor positive effects on SEA/SA Objective 5 (climate change); by introducing renewable energy schemes the carbon footprint of a quarry could reduce as well as greenhouse gas emissions depending on the nature of the proposal. However, the policy option states that such schemes should be encouraged where in conjunction with minerals operations to support carbon reduction, implying that there is no requirement for their implementation. Such proposals may also be a minor positive effect on SEA/SA Objective 9 (economic growth) depending on the nature and size of the proposal put

forward.

Option 7b:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: This option has a number of uncertain effects, it places the responsibility on the operator to submit a renewable energy scheme to reduce their carbon footprint alongside a minerals application, and whilst it is in their interest be as energy efficient as possible and reduce energy costs, such costs will be weighed against other issues such as retaining a share of the local market. As such there may be minor negative effects on SEA/SA Objective 1, 2 and 3 (geodiversity /nature conservation, landscape and water quality) which will depend on the nature and scale of the proposal.

There could however be minor positive effects on SEA/SA Objective 5 (climate change); by introducing a renewable energy scheme to support the operations of the quarry; the carbon footprint of a quarry could reduce as well as greenhouse gas emissions depending on the nature of proposals. However, the policy option states that renewable energy schemes should be considered separately from a mineral application. As such proposals will not be considered in the context with the application and it is questionable as to whether proposals will have a direct positive effect on minimising the carbon footprint. The Council may be unable to revisit how operations are conducted in the light of separate proposals and maximise the benefits that a combined proposal could offer

Such proposals may also be a minor positive effect on SEA/SA Objective 9 (economic growth) depending on the nature and size of the proposal put forward.

Summary:

It is very difficult to ascertain from both options, without having any further information on whether renewable energy schemes have been considered as part of mineral applications elsewhere in the country which the most sustainable option is. It is however likely that Option 7a would provide greater certainty and take a more proactive approach in terms of ensuring that the benefits of such a proposal could be maximised and the carbon footprint of the operations reduced.

It is also likely that the type and scale of a renewable energy scheme will be constrained. Proposals for instance from energy from waste schemes, wind farms, large scale solar photovoltaics and short rotation coppicing (i.e. willow and poplar) may all impact significantly on the landscape and visual character of the Mendips AONB as well as ground water hydrology and sensitive receptors.

Within the supporting text it states that Somerset County Council may require a carbon action plan to be submitted with an application showing how the applicant has considered energy efficiency measures. The SA/SEA is supportive of this proposal

Issue 8 (now Issue P1): Establishing a landbank for peat

Option 8a: A landbank should be identified to ensure adequate provision of peat, whilst avoiding over supply

Option 8b: No landbank is needed as there is sufficient supply of peat to continue to 2030 by which time there will be no more demand for peat

SA objective	Option 8a	Option 8b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	++
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	?	++
3. To maintain and improve ground and surface water quality	?	+
4. To maintain and improve air quality	?	+
5. To address the causes of climate change through reducing greenhouse gas emissions	+/-	+
6. To limit vulnerability to flooding taking account of climate change	?	+
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	+
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	+
9. To contribute to economic growth and diversity	+	+/-
10. To conserve and enhance soil quality	+/-	+

Option 8a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are a number of minor and uncertain effects associated with this policy covering SEA/SA Objectives 1, 2, 3, 4, 6 and 7 (environment, human health/amenity) which will be dependent on the nature of

the site and its proximity to sensitive receptors, as well as the scale of extraction proposed, whether the site lies in areas susceptible to flooding and the timescale that such sites come forward. It should be noted that to date a reduction in peat through voluntary measures has not been successful, and that if additional reserves are allowed this should focus on a clear need, based on predicted sales in the near future to avoid damaging Government's aim to become peat free. Somerset County Council is anticipating that if a landbank was required this would be between 3 to 5 years based on sales.

There are potentially mixed effects associated with SEA/SA Objective 5, 8 and 10 (greenhouse gas emissions, natural resources and soil quality) resulting from the direct extraction of peat; a non-renewable resource and the release of stored carbon during extraction as well as the transportation of peat elsewhere. However this is offset against the potential need to import peat from elsewhere with associated greenhouse gas emissions, increased traffic impacts and potentially greater impacts to more pristine peat areas than those in the Levels, accepting that there is a national drive to reduce peat production. There are likely to be positive effects on SEA/SA Objective 9 (economic growth), recognising that a landbank will enable operators to provide a continued supply of peat, albeit that there is a declining demand reflected in the number of operators, and that the timescale of the landbank has been left undefined. It should be noted that the release of additional reserves should only be allowed if there is clear need based on predicted sales in the near future to avoid damaging the government's aim to become peat free.

Option 8b:

Significant positive effects: There are potentially significant positive effects on SEA/SA Objective 1 and 2 (geodiversity/ biodiversity and landscape/heritage) based on the presumption that by 2030 there will be no demand for peat, and as such areas identified with significant ecological value, various environmental designations as well as substantial archaeological importance will remain untouched. However this reduction in use is to be achieved through voluntary measures which to date have not been successful and that if additional reserves are allowed this should focus on a clear need, based on predicted sales in the near future to avoid damaging Government's aim to become peat free. Somerset County Council is anticipating that if a landbank was required this would be between 3 to 5 years based on five year sales.

Significant negative effects: None

Minor and uncertain effects: None

There are a number of positive effects on SEA/SA Objective 3, 4, 5, 6, 7, 8 and 10 (water, soil and air quality, vulnerability to flooding, climate change, human health and natural resources) thereby protecting the quality of natural resources as well as protecting against the release of stored carbon during peat extraction, as well as through handling, processing and transportation.

There are mixed effects associated with SEA/SA Objective 9 (economic growth);

the option seeks to phase out peat extraction which may have a detrimental impact on the businesses of local producers and employers. However it is recognised through the paper that the number of peat producers has reduced substantially over the years, and as such the impact on the economy is relatively small. It should also be recognised that work has been undertaken to promote alternative development, working with operators on projects associated with nature conservation, enhanced wildlife conservation, agriculture or forestry and land and water based activities including for instance fish farms, as well as proposals through for instance the Parrett Catchment Project to alleviate flooding within the Somerset Levels and Moors.

Summary:

The SEA/SA considers that the most sustainable option is likely to be Option 8b which seeks to ensure that areas with a high level of environmental interest and archaeological importance remain protected, supports the protection and conservation of a non-renewable resource for future generations and prevents the release of carbon stored. Whilst there may be a detrimental impact on the businesses of local producers and employers it is recognised through the paper that the number of peat producers has reduced substantially over the years, and as such the impact on the economy overall is likely to be relatively small. It should also be recognised that work has been undertaken to promote alternative development working with operators on projects associated with nature conservation, enhanced wildlife conservation, agriculture or forestry and land and water based activities including for instance fish farms, as well as proposals through for instance the Parrett Catchment Project to alleviate flooding within the Somerset Levels and Moors.

This proposal, as outlined in the Paper aligns with a clear steer by Government, under the Draft National Planning Policy Framework to phase out the use of peat. It states that local planning authorities should “*not identify sites or extensions to existing sites for peat extraction*” and should “*not grant planning permission for peat extraction from new or extended sites*” in accordance with targets for England to switch to using only peat free growing media and soil improver products by 2020²⁴ CLG July 2011.

Issue 9 (now Issue P2): Sites with potential to impact on Natura 2000 designated land

Option 9a: Reserves of peat with a valid planning permission that have the potential to have a detrimental impact on NATURA 2000 sites (known as Regulation 63 sites) can be offset through revocation aided by the industry as part of the process of gaining alternative permissions in less sensitive areas, thereby providing environmental and local community benefits. The replacement site will still need planning permission.

²⁴ Department of Communities and Local Government, (July 2011) Draft National Planning Policy Framework,

Option 9b: Peat permissions that have been defined as Regulation 63 sites will be reviewed with the intention of determining whether they may be affirmed or will need to be modified or revoked. Permissions that are modified or revoked will have to be compensated for by the County Council, although there may be an opportunity to recoup some compensation from central government.

SA objective	Option 9a	Option 9b
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	++	++
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	+/-	+
3. To maintain and improve ground and surface water quality	+/-	+
4. To maintain and improve air quality	+/-	+
5. To address the causes of climate change through reducing greenhouse gas emissions	+/-	+
6. To limit vulnerability to flooding taking account of climate change	+/-	+
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	+/-	+
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	+/-	+
9. To contribute to economic growth and diversity	+/-	-?
10. To conserve and enhance soil quality	+/-	+

Option 9a:

Significant positive effects: There are likely to be significant positive effects on SEA/SA Objective 1 (geodiversity/diversity) through this option; protecting NATURA 2000 sites.

Significant negative effects: None

Minor and uncertain effects: There are a number of mixed effects as the benefits from reducing impacts on existing sites could be offset by impacts from new compensation sites. Mixed effects will be associated with SEA/SA Objective 6 (flooding) given that the area is susceptible to flooding as well as on SEA/SA

Objective 2, and 3 (landscape and water quality).

There may be mixed effects on SEA/SA Objective 7 (human health and amenity) since impacts will be dependent on the proximity of the site and associated infrastructure (including key transportation corridors) to the local community.

There will also be mixed effects associated with SEA/SA Objective 9 (economic growth). Whilst operators will still need to obtain planning permission for replacement sites creating uncertainty over the future economic viability of their businesses, the proposal does enable operators to continue peat extraction albeit in a declining market.

There will also potentially mixed effects associated with SEA/SA Objective 45, 8 and 10 (greenhouse gas emissions, natural resources, air and soil quality) resulting from the direct extraction of peat; a non-renewable resource and the release of stored carbon during extraction as well as the transportation of peat elsewhere which may cause air pollution which could be offset by the benefits of reducing impacts on existing sites

Option 9b:

Significant positive effects: There are likely to be significant positive effects on SEA/SA Objective 1 (geodiversity/diversity) through this option; protecting Natura 2000 sites.

Significant negative effects: None

Minor and uncertain effects: None

It is assumed through Option 9b that there will be no “trade off” with operators in terms of alternative less environmentally detrimental sites, and as a result there are likely to be positive effects on SEA/SA Objectives 2, 3, 4, 5, 6, 7, 8 and 10 (covering the environment, human health and amenity and natural resources) resulting in the protection of sites of high landscape, nature conservation and/or archaeological interest. Stored carbon will remain protected in Regulation 63 sites, peat will be protected and conserved for future generations, greenhouse gas emissions could drop, generating positive indirect effects on air quality and human health.

There are potentially minor negative effects associated with SEA/SA Objective 9 (economic growth), recognising that this proposal is likely to reduce the economic activity of operators. It may also, depending on landownership, have a detrimental impact on some businesses more than others, and could stifle competition.

Summary:

The SEA/SA found it difficult to determine which option is the most sustainable, the reason for this being that the extent to which the proposal complies with the SA objectives will depend on:

- a) the number of planning permission obtained for alternative sites in terms of Option 9a and the impacts that might arise from these, and

b) the extent of sites which will be modified or revoked in terms of Option 9b.

The SEA/SA also assumed for Option 9b that there would be no “trade off” with operators in the provision of alternative sites. If so, Option 9b would be less likely to result in environmental impacts elsewhere as compensation would be through financial mechanisms rather than the granting of alternative permissions. On the other hand, this could have an impact on economic objectives. Detailed discussions need to take place with operators to determine the impact of Option 9b, and whether it unfairly prejudices some businesses more than others. Both options however support opportunities to protect and conserve sites of environmental interest. The Paper states that there are some 70 Regulation 63 sites which have the potential to negatively impact on the Somerset Levels and Moors SPA.

It should be noted that based on the Draft National Development Framework Option 9a would not comply with national government guidance which states that local planning authorities should “*not identify sites or extensions to existing sites for peat extraction*” and should “*not grant planning permission for peat extraction from new or extended sites*” in accordance with targets for England to switch to using only peat free growing media and soil improver products by 2020.²⁵

²⁵ Draft National Planning Policy Framework, CLG, July 2011

Issues I0 (Issue P3): Reclamation Framework

Option 10a: The framework for reclamation included in the Mineral Local Plan is still relevant and should continue to guide the type of restoration and afteruse of sites.

Option 10b: A framework for reclamation allows the industry and community to work towards a positive landscape and range of after uses in the area, but the Framework in the Local Plan needs to be revised to reflect changes in the industry and opportunities such as biodiversity ambitions of the Natural Environment White Paper.

Option 10c: Restoration options should not be prescriptive and should allow for a variety of beneficial land uses. It should be the responsibility of the developer to demonstrate the benefits of the restoration and after-use scheme.

SA objective	Option 10a	Option 10b	Option 10c
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	++	++	+
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	++	++	+
3. To maintain and improve ground and surface water quality	?	+	+
4. To maintain and improve air quality	?	+	+
5. To address the causes of climate change through reducing greenhouse gas emissions	?	+	+
6. To limit vulnerability to flooding taking account of climate change	?	+	+
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	+	+
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	?	+	?
9. To contribute to economic growth and diversity	+	+	+
10. To conserve and enhance soil quality	?	+	+

Option 10a:

Significant positive effects: There are likely to be significant positive effects on SEA/SA Objectives 1 (geodiversity/biodiversity) and SEA/SA Objective 2 (landscape/built heritage) through this option.

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects associated with SEA/SA Objective 3 (water quality), SEA/SA Objective 6 (flooding), SEA/SA Objective 7 (human health/amenity) and SEA/SA Objective 8 (natural resources) which can only be assessed on a site by site basis; for instance the infilling of inert materials (accepting that this may be limited to a small number of sites) due to potential concerns over water contamination and also impacts on SEA/SA Objective 10 (soil quality). Uncertainties

covering SEA/SA Objective 3, 6, and 7 relate to the statement that most sites have extracted all peat leaving the underlying clay to form the base. The Somerset Levels and Moors is particularly susceptible to flooding and it is uncertain whether some of the proposals would impede water absorption rates, potentially increasing flood risk and the vulnerability of local communities close by.

In addition there are uncertain effects associated with SEA/SA Objective 4 and 5 (covering air quality and greenhouse gas emissions). Care needs to be taken to ensure that proposals do not increase emissions and impact on air quality for instance through a large visitor attraction. On this basis if this proposal was considered it would be important for the developer to submit a transport management plan detailing how emissions could be reduced

The Framework in the Minerals Local Plan states that aside from nature conservation there may be areas of appropriate agriculture including “novel wetland uses such as reed and withy growing or water based recreational activities.”²⁶ Proposals will be considered on a hierarchical basis; nature conservation would be appropriate over the whole area of the peat production zones, whilst reclamation to agriculture is acceptable in areas identified for recreation based on criteria detailed in an accompanying SPG. Whilst there are likely to be minor positive effects on SEA/SA Objective 9 (economic growth) it is uncertain whether reed and withy growing businesses are an economically viable option, and similarly whether given the areas susceptibility to flooding, agriculture is the most appropriate land use.

The SEA/SA notes that reference is made in the Paper to a “*mismatch between adjacent land uses following restoration despite the restoration framework*”; it would be beneficial if the Paper expanded on what these mismatches are. Little information is available in the Local Minerals Plan explaining how the existing framework was developed and whether this was in consultation with the local community, operators and landowners, and as such it is hard to judge where concerns over mismatches lie.

Option 10b:

Significant positive effects: There are likely to be significant positive effects on SEA/SA Objectives 1 (geodiversity/biodiversity) and SEA/SA Objective 2 (landscape/built heritage) through this option.

Significant negative effects: None

Minor and uncertain effects: There are minor positive effects relating to SEA/SA Objective 3, 4, 5, 6, 7, 8, 9 and 10 (covering water, air and soil quality, greenhouse gas emissions, flooding, natural resources, economic growth and human health/amenity) which are dependent on the nature of the framework proposals. It would be beneficial to include under this Option further information describing the differences between the original and revised framework based on the references made under this option.

The SEA/SA has assumed that the framework would seek, based on The Natural Choice,²⁷ to support “*environmentally and socially sustainable economic growth, together with food, water, climate and energy security*” as well as achieving a low carbon footprint.

²⁶ Somerset Minerals Local Plan 1997-2011, adopted April 2004,

²⁷ HM Government, (June 2011) The Natural Choice

Option 10c:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects associated with SEA/SA Objective 8 (natural resources) which can only be assessed on a site by site basis; for instance the infilling of inert materials (accepting that this may be limited to a small number of sites may not be feasible in certain locations due to potential concerns over water contamination.

There are potential minor positive effects on SEA/SA Objective 3, 5, 6 and 10 (covering water and soil quality, greenhouse gas emissions, and flooding). There is an assumption that various conditions will be introduced in terms of after use to ensure that soil quality and ground/surface water quality remains the same, or is improved.

There are likely to be minor positive effects on SEA/SA Objective 9 (economic growth) through after use proposals, although the type and number of employment opportunities will be dependent on the proposed after use i.e. a water sports centre promoting recreation and tourism, compared to restoring land to a wildlife reserve. Equally it is assumed that impacts on SEA/SA Objective 4 (air quality) and 5 (greenhouse gas emissions) which are minor positive will improve once activity within the area ceases, however this is very much dependent on the type of after use proposed, and whether the proposal attracts visitors by car.

This Option will also have a number of minor positive effects on SEA/SA Objectives 1, 2, 4 and 7 covering geodiversity/biodiversity, landscape/heritage, air quality and human health/amenity.

Proposals should seek through a detailed restoration plan to achieve positive gains for the site and surrounding area. Carefully consideration must be given to the needs of the local community in terms of restoration proposals and opportunities to expand on existing sites of nature conservation interest, as well as the creation of new sites. Care must be taken to ensure that proposals are sympathetic to the surrounding landscape character of the area. One of the disadvantages of this option is that it does not take a holistic view of a wider area and tackle wider cumulative effects of a number of proposals. If this option is carried forward it is essential that there is a level of consistency in assessing each site using the same criteria or checklist of issues.

Summary:

It is likely from the SEA/SA review that Option 10b is the most sustainable option however further information is required as to the likely differences between the existing and proposed framework and how concerns over mismatches between adjacent landuses can be addressed. A framework approach would be beneficial if a holistic approach is taken to proposals, with a unified maintenance/management plan potentially with an extended aftercare period (beyond the statutory five years stipulated by government). Proposals will need to ensure that measures are in place to address flood protection and water storage concerns. It will also be important to ensure that proposals seek to achieve a positive gain towards reducing the carbon footprint and traffic on roads which are generally of a poor quality and unable to take heavy loads.

It will be important to ensure that activities promoting nature conservation and enhancing wildlife conservation, agriculture or forestry and land and water based

activities do not conflict with the wildlife interest and quiet nature of the area, and the potential benefits to the environment, local communities and economy are maximised in a sustainable manner.

Issue 11 (now Issue BSI): Local stone for local demand

Option 11a (changed): Production of supplementary planning guidance including information on the types of building stone, possible sources of building stone, availability of stone types, reserves in the county, end uses and information should be provided by applicants etc

Option 11a (revised): Affirm the importance of building stone for maintaining local character and develop policy in support for new building stone quarries where a need for the stone can be demonstrated.

Option 11b: Diversification of activities and/or products from building stone quarries to enhance the economic viability, as long as impacts can be mitigated and managed at acceptable levels e.g. aggregate production, reconstituted stone, storage and reworking of salvaged natural stone, products developed for sale beyond the local market such as kitchen worktops or fireplaces. It is important to note that activities permitted by a planning permission are monitored by the planning authority to ensure compliance.

Option 11c (removed): Adopt and use a Local Development Order for the small scale working and development of key building stones in Somerset where a demonstrable need arises e.g. maintenance of an important building.

SA objective	Option 11a	Option 11a (revised)	Option 11b	Option 11c
1. To protect geodiversity and conserve and enhance biodiversity including natural habitats and protected species	?	?	?	?
2. To protect and enhance landscape character, local distinctiveness and historic built heritage	+	+/-	+/-	+/-
3. To maintain and improve ground and surface water quality	?	?	?	?
4. To maintain and improve air quality	?	?	?	?
5. To address the causes of climate change through reducing greenhouse gas emissions	?	+	+	+
6. To limit vulnerability to flooding taking account of climate change	?	?	?	?
7. To minimise the risks to human health derived from mineral extraction and improve overall quality of life/amenity	?	?	?	?
8. To minimise consumption of natural resources, promote resource efficiency and avoid unnecessary sterilisation	?	?	?	?
9. To contribute to economic growth and diversity	?	+	+	+
10. To conserve and enhance soil quality	?	?	?	?

Option 11a:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are a number of uncertain effects on SEA/SA Objectives 1, 3, 4, 5, 6, 7, 8, 9 and 10 (environment, natural resources, human health/amenity and economic growth) which will be dependent on what the SPD states. It should be noted that the SPD is not supposed to provide new substantive policy; it should be linked to an overarching policy advice in the Core Strategy.

The production of supplementary planning guidance should have a positive effect on SEA/SA Objective 2 (landscape/built heritage) and is likely to provide clear guidance on the sourcing of appropriate local stone to retain, conserve and enhance the local vernacular of buildings and features within the landscape.

Option 11a (revised)

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are a number of uncertain effects associated with SEA/SA Objective 1, 3, 4, 6, 8 and 10 (covering environment and natural resources). Clarification is required as to whether this proposal seeks to just open up disused quarries or whether new quarries will be created. Careful consideration needs to be given to the impact on SEA/SA Objective 7 (human health and amenity) associated with noise, dust and air quality as well as an increase traffic on local roads on the basis that a number of quarries are likely to be located close to settlements.²⁸ There are mixed effects on SEA/SA Objective 2 (landscape/built heritage). Whilst the proposal will seek to maintain the character of built heritage as well as reflecting subtleties in local vernacular, there may be negative impacts (albeit small scale) on landscape and visual character especially where sites have been restored /are overgrown by vegetation or where new operations take place (assuming that these will be small scale).

There are potentially minor positive effects in terms of SEA/SA Objective 5 (greenhouse gas emissions) as the proposal seeks to ensure that locally sourced stone should be used in preference to stone imported from elsewhere thereby reducing greenhouse gas emissions.

There are likely to be minor positive effects on SEA/SA Objective 9 (economic growth) supporting new business investment and generating employment where existing disused and new quarries are created, however it is unclear to what output levels such activities will be encouraged and as such the level of growth, employment opportunities and the possible impact on competitors elsewhere remains uncertain. It is assumed therefore that production limits will be set within planning permissions which will be strictly monitored.

Option 11b:

Significant positive effects: None

Significant negative effects: None

²⁸ Somerset County Council, (not dated), Somerset Building Stones Paper – issues consultation for Minerals Core Strategy.

Minor and uncertain effects: There are a number of uncertain effects associated with SEA/SA Objective 1, 3, 4, 6, 8 and 10 (covering environment and natural resources). Clarification is required as to what is meant by acceptable levels of impact. Careful consideration needs to be given to the impact on SEA/SA Objective 7 (human health and amenity) associated with noise, dust and air quality as well as increase traffic on local roads on the basis that a number of quarries are located close to settlements.²⁹

There are potentially minor positive effects in terms of SEA/SA Objective 5 (greenhouse gas emissions) as the proposal seeks to ensure that locally sourced stone should be used in preference to stone imported from elsewhere thereby reducing greenhouse gas emissions.

There are likely to be minor positive effects on SEA/SA Objective 9 (economic growth) supporting existing and new business investment and generating employment if diversification is encouraged, however it is unclear to what output levels such activities will be encouraged and as such the level of growth, employment opportunities and the possible impact on competitors elsewhere remains uncertain. It is assumed therefore that production limits will be set within planning permissions which will be strictly monitored.

There are mixed effects on SEA/SA Objective 2 (landscape/built heritage). Whilst the proposal will seek to maintain the character of built heritage as well as reflecting subtleties in local vernacular, there may be negative impacts (albeit small scale) on landscape and visual character especially where sites have been restored or are overgrown by vegetation.

Option 11c:

Significant positive effects: None

Significant negative effects: None

Minor and uncertain effects: There are uncertain effects associated with SEA/SA Objective 1, 3, 4, 6, 7, 8 and 10 (covering environment, human health and amenity, and natural resources) as a Local Development Order provides for permitted rights without the need to submit a planning application, implying less in the way of controls in advance of work taking place. As the Paper states careful consideration must be given to proposals on an individual basis ensuring the necessary mitigation measures are in place to minimise any impacts. The importance of the site for current uses must also be considered, for instance it may be designated an SSSI or a RIG.

There are mixed effects on SEA/SA Objective 2 (landscape/built heritage). Whilst the proposal will seek to maintain the character of built heritage as well as reflecting subtleties in local vernacular, there may be negative impacts (albeit small scale) on landscape and visual character especially where sites have been restored or are overgrown by vegetation.

There are potentially minor positive effects in terms of SEA/SA Objective 5 (greenhouse gas emissions) as the proposal seeks to ensure that locally sourced stone should be used in preference to stone imported from elsewhere thereby reducing greenhouse gas emissions.

This option would have a positive effect on SEA/SA Objective 9 (economic growth)

²⁹ Somerset County Council, (not dated), Somerset Building Stones Paper – issues consultation for Minerals Core Strategy.

creating small business and employment opportunities. Proposals would have to be carefully balanced against activities adjacent to the site to ensure that other businesses are not displaced.

Summary:

The SEA/SA considers that all options; (Option 11a, a (revised), b and c are sustainable supporting the conservation and restoration of the built heritage through locally sourced material.

Option 11a (changed) the production of supplementary planning guidance, should have a positive effect on SEA/SA Objective 2 (landscape/built heritage) and is likely to provide clear guidance on the sourcing of appropriate local stone to retain, conserve and enhance the local vernacular of buildings and features within the landscape. There are a number of uncertain effects on the remaining SEA/SA Objectives (environment, natural resources, human health/amenity and economic growth) which will be dependent on what the SPD states. It should be noted that the SPD is not supposed to provide new substantive policy; it should be linked to an overarching policy advice in the Core Strategy.

Option 11a (revised) to develop a policy in support of new building stone quarries where a need for the stone can be demonstrated will have a positive effect on SEA/SA Objective 5 (greenhouse gas emissions) and SEA/SA Objective 9 (economic growth). It will however have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been restored/are overgrown by vegetation or where new sites need to be considered. There are also a number of uncertain effects on the environmental, natural resources and human health/amenity objectives.

Option 11b sets out a clear policy steer, and is likely to generate positive effects associated with economic growth, supporting existing and new business investment and generating employment if diversification is encouraged, however it is unclear to what output levels such activities will be encouraged, and as such the level of growth, employment opportunities and the possible effects on competitors elsewhere. Equally there are likely to be positive effects associated with greenhouse gas emissions since stone will be locally sourced rather than imported from elsewhere. This option will have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been restored or are overgrown by vegetation. There are also a number of uncertain effects on the remaining environmental, natural resources and human health/amenity objectives on the basis that a number of the quarries are located close to settlements and could generate noise, dust and contribute to air pollution as well as issues associated with the specific nature of each site.

Option 11c would create small business and employment opportunities, although care needs to be taken to ensure that adjacent business are not displaced and the impacts on the local community and surrounding environment are mitigated. In addition, material would be locally sourced, minimising greenhouse gas emissions. This option will have mixed effects on landscape/built heritage, whilst the proposal seeks to maintain the character of the built heritage; reflecting subtleties in local vernacular, it may result in negative impacts on landscape/visual character where sites have been

restored or are overgrown by vegetation. There are also a number of uncertain effects on the environmental, natural resources and human health/amenity objectives. As the Paper states careful consideration must be given to proposals on an individual basis ensuring the necessary mitigation measures are in place to minimise any impacts. The importance of the site for current uses must also be considered, for instance it may be designated an SSSI or a RIG.

The SEA/SA agrees with the Paper that controls should be in place to monitor environmental effects and ensure that limits associated with the method of working and annual output are put in place prior to work commencing.