URS

Sustainability Appraisal (SA) of the Minerals Issues and Options Paper (2010)

Interim SA Report

July 2013

UNITED KINGDOM & IRELAND

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INTRODUCTION

1 BACKGROUND

1.1.1 URS has been commissioned to undertake Sustainability Appraisal (SA) in support of the emerging Derby and Derbyshire Minerals Local Plan which is being prepared jointly by Derbyshire County Council and Derby City Council. SA is a mechanism for considering and communicating the likely effects of alternative strategies and emerging approaches in terms of sustainability issues, with a view to ensuring that the plan, once finalised, has sound sustainable development credentials. SA of Local Plans is legally required.[1]

2 SA EXPLAINED

2.1.1 It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004 (the Regulations), which were prepared in order to transpose the EU Strategic Environmental Assessment (SEA) Directive into UK law.[2]

2.1.2 The Regulations require that a report is published for consultation alongside the draft plan that *'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'*. The report must then be taken into account, alongside consultation responses, when finalising the plan.

2.1.3 In-line with the Regulations the report - which for the purposes of SA is known as **the 'SA Report'** – must essentially answer **four questions**:

1. What's the scope of the SA?
2. What has Plan-making / SA involved up to this point?
   - Preparation of the Plan must have been informed by at least one earlier plan-making / SA iteration at which point 'alternatives' are appraised.
3. What are the appraisal findings at this current stage?
   - i.e. in relation to the suggested approaches in the issues and options document.
4. What happens next?
   - i.e. what are the next stages of plan making and how will the effects of the plan be monitored.

3 THIS INTERIM SA REPORT

3.1.1 At the current stage of plan-making the Councils have not yet prepared a draft Local Plan.

3.1.2 Although the Council's are now producing a Local Plan rather than a 'Core Strategy', parts of the evidence gathered to support the Core Strategy is still relevant.

3.1.3 This Interim SA Report therefore presents a retrospective appraisal of the options and suggested approaches that were considered in the Minerals Core Strategy Key Issues and Options (April 2010) consultation document.

4 STRUCTURE OF THIS INTERIM SA REPORT

4.1.1 This is an 'Interim' SA Report (i.e. a document that does not need to provide the information required of the SA Report). Nevertheless the structure of the report is broadly according to the **four questions** listed above.

[1] The Planning and Compulsory Purchase Act 2004 established a requirement for a process of Sustainability Appraisal to be carried out alongside plan-making. The centrality of SA to Local Plan-making is emphasised in the National Planning Policy Framework (2012).
[2] Directive 2001/42/EC

PART 1: WHAT'S THE SCOPE OF THE SA?

5 INTRODUCTION (TO PART 1)

5.1.1 The aim of this part of the report is to introduce the reader to the scope of the SA.

5.1.2 An important step when seeking to establish the appropriate 'scope' of an SA involves reviewing the sustainability context messages from other plans, policies and programmes. In addition, there is a need to draw together baseline information about the problems/issues currently faced by the area affected by the plan and the likely future problems/issues without the plan. A detailed understanding of the baseline information can then aid the identification and evaluation of 'likely significant effects' associated with the Minerals Local Plan.

5.1.3 The following sustainability 'topics' were selected through the Scoping process. They reflect the key environmental aspects that might be susceptible to significant effects as a result of the Local Plan. They have been determined following a review of the sustainability context and baseline, what the plan is seeking to achieve and aligned to topics suggested by the SEA Directive:

- Biodiversity, Fauna and Flora
- Land, Water Resources (incorporating waste and minerals)
- Heritage and Landscape
- Air quality and Transport
- Climatic factors, energy and flooding
- Communities and Human Health
- Local Employment and Economy

5.1.4 The sustainability context review and baseline information are presented in the SA Scoping Report updated in October 2013 and explain further why these topics have been selected.

5.1.5 **Chapter 6** discusses what the Minerals Local Plan is broadly seeking to achieve. At the time the Issues and Options document was published, a draft vision and strategic objectives were also developed to support the Core Strategy (*now the Minerals Local Plan*).

5.2 Consultation on the scope

The Regulations require that *"When deciding on the scope and level of detail of the information that must be included in the report, the responsible authority shall consult the consultation bodies"*. In England, the consultation bodies are Natural England, The Environment Agency and English Heritage.[3] As such, these authorities were consulted on the SA scope between April and October 2013. Other stakeholders were also consulted on the scope in July 2009 through a 'latest news; article.

The revisions in the July 2013 Scoping update take account of the comments received to the original Scoping Report, which was first published in 2009.

[3] In-line with Article 6(3).of the SEA Directive, these consultation bodies were selected because *'by reason of their specific environmental responsibilities,[they] are likely to be concerned by the environmental effects of implementing plans and programmes.'*

6 WHAT IS THE PLAN SEEKING TO ACHIEVE?

6.1.1 The Derby and Derbyshire Minerals Plan is being prepared jointly by Derbyshire County Council and Derby City Council. Derbyshire County Council is the minerals and waste planning authority for Derbyshire, excluding the area administered by the Peak District National Park and Derby City Council is the minerals and waste planning authority for the City of Derby administrative area. The Plan is seeking to achieve the delivery of 'sustainable' minerals development in the plan area to 2030. This means providing sufficient opportunities for minerals development to take place in order to maintain a steady supply of minerals to support economic growth and regeneration, whilst protecting the environment and communities from the adverse impacts of extraction.

6.1.2 The plan will also guide the mineral planning authorities when making a decision on a planning application for mineral development within the plan area.

6.1.3 The plan will replace the policies of the Derby and Derbyshire Minerals Local Plan, which was adopted in 2000 (with an alteration to coal policies in 2002). There have been significant changes in government policy since the Minerals Local Plan was adopted and a more up to date plan is required to guide development to 2030.

6.1.4 The Minerals Local Plan is being prepared in accordance with the Planning and Compulsory Purchase Act 2004 and the Localism Act 2011. The plan will be in accordance with the principles and policies set out in the National Planning Policy Framework (March 2012) and it's supporting technical guidance.

6.1.5 Work started on a Minerals 'Core Strategy' Development Plan Document in Spring 2009. This involved consultation on a Minerals Issues and Options paper in 2010 to help develop a preferred approach to the Core Strategy. In response to changes in the planning system, there will no longer be a 'Core Strategy' as such, instead a replacement Minerals Local Plan is being prepared. However, the issues and options that were explored in support of the anticipated Core Strategy are still considered relevant to the development of the Minerals Local Plan. Therefore, a retrospective SA has been undertaken to highlight the sustainability implications of a range of alternative approaches that were presented in the Issues and Options consultation document.

6.1.6 Further background in relation to the Minerals Local Plan preparation is provided within Part 2 of this Interim SA Report (which answers the question 'What has plan-making / SA involved up to this point?')

6.2 Draft Local Plan vision and objectives

6.2.1 The vision set out (for the Core Strategy) in the Issues and Options Report in 2010 was that by 2030:

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

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

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

4. *Development will have also helped the achievement of sustainable economic development and regeneration of the area, including through the delivery of materials for*

use in industry, the creation of jobs and training and addressing the legacies of the historic economy, especially in areas of identified deprivation.

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

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

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

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

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

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

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

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

6.2.2 The eleven objectives set out in the Derby and Derbyshire Issues and Options report 2010 are:

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

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

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

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

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

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

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

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

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

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

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

6.3 What's the plan not seeking to achieve?

6.3.1 It is important to emphasise that parts of the plan will be strategic in nature. Even the allocation of sites should be considered a strategic undertaking, i.e. a process that omits consideration of some detailed issues in the knowledge that these can be addressed further down the line (through the development management process). The strategic nature of the plan is reflected in the scope of the SA.

7 WHAT ARE THE KEY ISSUES THAT SHOULD BE THE FOCUS OF THE APPRAISAL?

7.1 Introduction

7.1.1 The following table presents the sustainability topics and objectives established through SA scoping - i.e. in-light of context/baseline review and consultation - that should provide a methodological framework for the appraisal of 'likely significant effects' on the baseline.

7.1.2 **Appendix I** provides the detailed SA framework (*identified in the 2009 Scoping Report*) including appraisal criteria and possible indicators.

Table 7.1: Sustainability topics and objectives (i.e. the SA framework)

Topic	Sustainability Objectives There is a need…..
Biodiversity, Fauna and Flora	2. To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species.
Land, Water Resources (incorporating waste and minerals)	3. To protect, conserve and enhance air, water and soil quality, minimise light and noise pollution and land instability. 8. To achieve a more efficient use of natural resources and infrastructure, minimise the production of waste and increase reuse, recycling and recovery of waste in Derby and Derbyshire. 9. To maximise the potential economic benefits of mineral operations and waste management to a sustainable economy in Derby and Derbyshire and other parts of the Country.
Heritage And Landscape	4. To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character and cultural heritage.
Air quality and Transport	3. To protect, conserve and enhance air, water and soil quality, minimise light and noise pollution and land instability. 5. To minimise traffic levels, journey lengths, the number of road traffic related accidents, and to encourage sustainable forms of transport in Derby and Derbyshire.
Climatic factors, energy and flooding	6. To reduce contributions to climate change, by reducing greenhouse gas emissions, promoting efficient energy use and encouraging the use of renewable energy 7. To limit vulnerability to flooding, taking account of climate change
Communities and Human Health	1. To protect, maintain and improve the health and well being of Derby and Derbyshire's people and communities.
Local Employment, Economy and Housing	9. To maximise the potential economic benefits of mineral operations and waste management to a sustainable economy in Derby and Derbyshire and other parts of the Country.

PART 2: WHAT HAS PLAN-MAKING / SA INVOLVED UP TO THIS POINT?

8 INTRODUCTION (TO PART 2)

8.1.1 The following is an overview of plan-making up to this point:

- Plan preparation began in March 2009 with evidence gathering and then subsequently a key issues workshop in September 2009.
- The SA Scoping Report was published between April and July 2009.
- The Minerals Local Plan Key Issues and Options Report and Evidence Base Papers were published for consultation between April and June 2010.
- In October-December 2012 drop-in sessions were held in communities affected by proposals for future sand and gravel extraction in the Trent, Derwent and Dove Valleys.
- The Draft Local Aggregate Assessment was published for comment in March 2013.

8.1.2 The Regulations[4] state that the environmental report (SA report) should present an appraisal of 'the likely significant effects on the environment of (a) implementing the plan or programme; and (b) reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme.'

8.1.3 Appraisal at this interim stage (as presented within Part 3 of this report) is focused on:

- The options (the 'alternatives') presented in the Minerals Core Strategy Key Issues and Options Report (2010) where these have been considered for particular policy issues to be addressed by the plan.

- The broad sustainability implications of those issues where no options have been presented, but a proposed approach has been identified. *(Appraisal of suggested / emerging approaches can help to identify sustainability issues early in the plan development process).*

8.1.4 The issues where options have been identified include:

Issue 1a Calculating the provision of Aggregates beyond 2020 – crushed rock and sand and gravel

Issue 7 Meeting the need for building stone

Issue 14 Reworking spoil tips for secondary aggregates

Issue 17 Reducing the landbank of crushed rock in Derbyshire

Issue 18 Should there be a strategic scheme for the restoration of sand and gravel workings in the Trent Valley area

Issue 19 Should there be a strategic scheme for the restoration of quarries along the A515 Corridor, Buxton

8.1.5 The aim of this Part 2 of the report is to explain the options that are presented in the consultation document. In particular in-line with Schedule 2 of the Regulations there is a need to provide outline reasons for the selection of options with a view to demonstrating 'reasonableness'. Reasons have also been given where options have not been identified.

[4] Environmental Assessment of Plans and Programmes Regulations 2004

9 MINERALS ISSUES AND OPTIONS

9.1 The Issues

9.1.1 The Issues for the plan to address which were put forward as part of the Minerals Local Plan Key Issues and Options report (2010) are as follows:

Issue	
Issue 1a	Calculating the provision of Aggregates beyond 2020 – crushed rock and sand and gravel
Issue 1b	Reducing Derbyshire's share of the Peak park's displaced provision Options regarding Peak Park apportionment
Issue 2	Identification of sites for sand and gravel
Issue 3	Criteria based policy for industrial limestone
Issue 4	Identifying Future Working Areas for Coal Extraction
Issue 5	Surface mining constraint areas
Issue 6	Proper and efficient use of building stone
Issue 7	Meeting the need for building stone (how much/where issue)
Issue 8	Managing how we make provision for clay
Issue 9	Managing how we make provision for vein minerals
Issue 10	Managing how we make provision for conventional oil and gas
Issue 11	Managing how we make provision for new coal exploitation technologies
Issue 12	Reducing the supply of aggregates from the Peak Park
Issue 13	Safeguarding sites for recycled aggregates
Issue 14	Reworking spoil tips for secondary aggregates
Issue 15	Definition of Mineral Safeguarding Areas
Issue 16	Safeguarding policy – sterilisation of mineral resources
Issue 17	Reducing the landbank of crushed rock in Derbyshire
Issue 18	Should there be a strategic scheme for the restoration of sand and gravel workings in the Trent Valley area?
Issue 19	Should there be a strategic scheme for the restoration of quarries along the A515 Corridor, Buxton?
Issue 20	Site Suggestions

9.2 Options and the reasons for their selection

9.2.1 The following table sets out the approach proposed to address each issue, including where relevant options ('alternatives') for the approach and the reasons for their selection

Issue	Options	Outline reasons
Issue 1a	**Option 1**: Make an estimate of provision beyond 2020 based on a straight line projection of the current agreed apportionments (i.e. the annual apportionments for crushed rock and sand & gravel remain the same for the years from 2020-2030 as they are from 2005-2020.) **Option 2**: Use an average figure of recent annual production rates to calculate annual apportionment figures from 2020 to 2030	Using straight line projections is a reasonable alternative for helping to determine future requirements of minerals Emerging thinking in 2010 relating to local aggregates assessments proposed to determine future provision by considering recent average production levels.
Issue 1b	**No options put forward – suggested approach:** Reduce proportion of displaced provision from Peak Park after 2020	At the time (2010) it appeared that other MPA's would take some of the Peak Park's displaced provision. More recent discussions have resolved that DCC will take all of the displaced provision to 2030.
Issue 2	**No options put forward - suggested approach:** Up to 2020 allocate specific extensions to sites rather than allocate new sites and allocate broader Areas of Search between 2020 and 2030	When the Issues and options report was published in 2010, apportionments were only available to 2020, so there was greater certainty to 2020 to allocate specific sites for that period. An alternative approach would be to allocate new sites for extraction before 2020 rather than extending existing sites. This approach was discarded because government policy in MPS1 favoured extensions to sites and there were a number of extensions which the site assessments indicated had good potential for working.
Issue 3	**No options put forward - suggested approach:** Provide a criteria based policy	This is a procedural issue. An appraisal of distinct options would not produce meaningful findings at this stage. A criteria based policy was considered to be the most appropriate way of meeting the unknown and unpredictable demand for additional industrial limestone working during the Plan period. (note: no specific information had been submitted at that time regarding specific shortfalls or potential new allocations, this was received following the I&O consultation).
Issue 4	**No options put forward - suggested approach:** Provide a criteria based policy	An appraisal of distinct options would not produce meaningful findings at this stage. This issue was to be looked at again following receipt of responses
Issue 5	**No options put forward – suggested approach:** Designate surface mining constraint areas, follow the approach taken in the Minerals Local Plan of identifying areas with a sufficient concentration of conservation designations to justify special protection	The alternative approach would be to not designate minerals constraints areas. This option was not considered reasonable because it does not accord with national policy (*i.e. mineral planning should seek to minimise environmental impacts*).

Issue	Options	Outline reasons
Issue 6	**No options put forward preferred approach is:** Include a policy which stipulates that building stone from new workings should be the principal product	An alternative approach would be to allow the market to determine what stone is used for. This is not considered reasonable due to the sensitivity of landscapes associated with building stone and the importance of this resource to local heritage.
Issue 7	**Option 1**: Identify specific quarries or extensions to existing quarries to provide sources of building and roofing stone for certain buildings or settlements **Option 2:** Devise a general policy, which allows for extraction of building stone at sites where particular criteria are met	To provide greater certainty to developers as to where extraction would be acceptable. To provide flexibility to developers to bring forward developments.
Issue 8	**No options put forward - suggested approach:** Include a policy for the development of clay working which sets out criteria similar to those in the existing Minerals Local Plan policy.	A criteria based policy was considered to be the most appropriate way of meeting the fluctuating demands for clay. Details of a criteria based policy would determine the impacts and the SA could influence the development of this policy without the need to consider alternatives
Issue 9	**No options put forward - suggested approach:** Include a policy for the development of vein working which sets out criteria similar to those in the existing Minerals Local Plan policy (MP33)	There are no distinct alternatives other than to not include a policy. Details of a criteria based policy would determine the impacts and the SA could influence the development of this policy without the need to consider alternatives
Issue 10	**No options put forward - suggested approach:** **I**nclude a policy for conventional oil and gas development which sets out criteria similar to those in the existing Minerals Local Plan policy (MP13 and MP35)	There are no reasonable alternatives. The SA can influence the development of the policy approach.
Issue 11	**No options put forward - suggested approach:** Include a policy for new coal exploitation technologies which sets out criteria similar to those for conventional oil and gas development as in the existing Minerals Local Plan policy (MP35)	There are no reasonable alternatives. The SA can influence the development of the policy approach.
Issue 12	**No options put forward - suggested approach:** Continue to contribute to the aim of reducing aggregates from the National Park through agreed increases in Derbyshire's apportionment based on the markets that Derbyshire is best placed to supply sustainably	An option would be to maintain contributions from the PDNP or increase the proportion of supply from other authorities. However, this was not considered reasonable because for the former, this would be contrary to national policy, which seeks to maintain landbanks outside National Parks and for the latter, it is unlikely, having considered the landbanks of other MPA's, that they have the mineral resource to enable an increase in production of crushed rock. DCC has a landbank of crushed rock of a scale much greater than other MPA's in the area which will enable it to provide the required material for this plan period at least.
Issue 13	**No options put forward - suggested approach:** Most appropriate place to consider the safeguarding of individual sites suitable for the recycling, reprocessing and transfer of	This is a procedural issue. The findings of SA would not differ if the issue was dealt with in the Waste Plan rather than the Minerals Plan.

Issue	Options	Outline reasons
	materials including construction and demolition wastes is the Waste Core Strategy	
Issue 14	**Option 1**: Criteria based policy relating to reworking of spoil tips for secondary aggregates **Option 2**: Identify specific sites where these products can be worked	To provide a flexible approach to provision. To provide greater certainty.
Issue 15	**No options put forward - suggested approach:** Not specifically presented as question what will be the most appropriate way of defining MSAs but in supporting text states 'all minerals of sufficient economic value and those of conservation value will be considered for safeguarding. This includes sand and gravel, limestone for both aggregate and industrial uses, coal, building stone and brick clay'. 'Likely to be inappropriate and unworkable to define all resources'	This was presented as an open ended question asking people how they thought we should define MSA's. People's responses informed the development of the Safeguarding background paper which presented options and was made available for public comment.
Issue 16	**No options put forward - suggested approach:** Continue with existing Minerals Local Plan policy MP17 which states proposals for development which would sterilise future working of economically workable mineral deposits will be resisted, except where there is an overriding need for the development and prior extraction cannot be undertaken. Where the development is considered essential and proven mineral deposits would be sterilised, permission will be granted provided it would not lead to adverse environmental impacts	Not safeguarding minerals from potential sterilisation would not accord with national policy. Therefore, there are no distinct alternatives. The SA can influence the development of the policy approach.
Issue 17	**Option 1** : grant limited new permissions for aggregate crushed rock if operators agree to relinquish reserves of a greater amount in Derbyshire as a condition of the permission **Option 2** : grant limited new permissions for aggregate crushed rock if operators agree to reserves of a greater amount in Derbyshire or the Peak District National Park as a condition of the permission	At the time of writing the Issues and Options document, Government policy in MPS1 sought to reduce the scale of landbanks. It was considered that the option of also using this policy to help reduce reserves in the PDNP would be beneficial
Issue 18	**Option 1** -Prepare a comprehensive long term landscape strategy for the restoration of sand and gravel workings in the Trent Valley, accepting that this may guide the allocation of new sites. **Option 2**: Continue to apply a criterion based approach to the restoration of sand and gravel workings, based on local circumstances, devising restoration schemes	To provide greater clarity and certainty for the restoration of sand and gravel sites. To continue the current approach to site restoration.

Issue	Options	Outline reasons
	for quarries as they arise, guided by local circumstances only.	
Issue 19	**Option 1**: Prepare a comprehensive long term landscape strategy for the restoration of limestone quarries along the A515 Corridor. – need further detail about baseline of A515 corridor to appraise. **Option 2:** Continue to apply a criteria based approach to the restoration of these quarries, based on local circumstances, devising restoration schemes for quarries as they arise, guided by circumstances specific to the particular quarry only.	To provide greater clarity and certainty for the working and restoration of limestone quarries. To continue the current approach to site restoration.
Issue 20	This issue invited consultees to submit sites and therefore options are not applicable	Not applicable

PART 3: WHAT ARE THE SA FINDINGS AT THIS STAGE?

10 INTRODUCTION (TO PART 3)

10.1.1 This part of the SA Report presents summary appraisal findings in relation to alternative approaches / options introduced in Part 2, above.

10.2 Methodology

10.2.1 For each of the issues where options have been put forward an appraisal has been undertaken. Where possible the appraisal identifies and evaluates 'likely significant effects' on the baseline, drawing on the sustainability topics / issues identified through scoping (see Part 1) as a methodological framework.

10.2.2 Effects are predicted taking into account the criteria presented within Regulations.[5] So, for example, account is taken of the duration, frequency and reversibility of effects as far as possible. These effects are described within the appraisal. The potential for 'cumulative' effects is also considered where relevant.

10.2.3 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the options and the fact that they relate to one issue to be addressed by the plan amongst many. The ability to predict effects accurately is also limited by understanding of the baseline (now and in the future under a 'no plan' scenario) and the specific details of the proposed approach. NB: A '*no plan'* scenario would still include Saved Local Policies and material considerations such as the NPFF.

10.2.4 In light of this, there is a need to make assumptions regarding how options would be implemented 'on the ground' and what the effect on particular receptors would be.

10.2.5 In many instances, given reasonable assumptions, it is not possible to predict with confidence that there will be 'significant effects' (*as defined by the SEA directive*). However, it is still possible to comment on the merits of an option in more general terms. This is helpful, as it enables a distinction to be made between the alternatives even where it is not possible to distinguish between them in terms of '*significant effects'*.

[5] Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations 2004

11 ISSUE 1A CALCULATING THE PROVISION OF AGGREGATES BEYOND 2020 – CRUSHED ROCK AND SAND AND GRAVEL

11.1.1 The table below presents the appraisal findings in relation to the options presented for calculating the provision of aggregates beyond 2020.

What approach should be taken to calculating the necessary provision for aggregates in the period after 2020?

Option 1: Make an estimate of provision beyond 2020 based on a straight line projection of the current agreed apportionments (i.e. the annual apportionments for crushed rock and sand and gravel remain the same for the years from 2020-2030 as they are from 2005-2020.)

Option 2: Use an average figure of recent annual production rates to calculate annual apportionment figures from 2020 to 2030

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
	Option 1	Option 2	
Biodiversity, Flora and Fauna	2	1	The significance of effects of both options on biodiversity, flora and fauna will depend on the locations of the specific sites needed to deliver the apportionment. Under option 1 a greater amount of aggregate compared to option 2 would be permitted and therefore more sites could be worked with the potential for greater adverse impacts on biodiversity.
Land and Water Resources (incorporating waste and minerals)	2	1	The significance of effects of both options on land and water resources will depend on the locations of the specific sites needed to deliver the apportionment. Under option 1 a greater amount of aggregate compared to option 2 would be permitted and therefore more sites could be worked with the potential for greater adverse impacts on soil quality and water resources. Option 1 would however support the minerals industry. A lower apportionment is expected to still result in the efficient use of natural resources in the future as secondary aggregate is expected to increase in line with recycling targets.
Heritage and Landscape	2	1	The significance of effects of both options on heritage and landscape will depend on the locations of the specific sites needed to deliver the apportionment. Under option 1 a greater amount of aggregate compared to option 2 would be planned for and therefore more sites could be worked with the potential for greater adverse impacts on heritage and landscape.
Air Quality and Transport	2	1	With regards to air quality and transport both options could have negative effects as result of the working of sites however the significance of these will depend on the locations of the specific sites needed to deliver the apportionment. Under option 1 a greater amount of aggregate compared to option 2 would be planned for and therefore more sites could be worked with the potential for greater adverse impacts on local air quality and the road network.

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
Climatic Factors, Energy and Flooding	2	1	The significance of effects of both options on climate change and flooding will depend on the locations of the specific sites needed to deliver the apportionment. For sand and gravel these are expected to be located in areas at risk of flooding. Under option 1 a greater amount of aggregate compared to option 2 would be planned for and therefore more sites could be worked with the potential for greater adverse impacts in relation to flooding.
Communities and Health	2	1	Both options could have negative effects upon local communities as result of the working of sites and resulting traffic and air quality effects however the significance of these effects will depend on the locations of the specific sites needed to deliver the apportionment. Under option 1 a greater amount of aggregate compared to option 2 would be planned for and therefore more sites could be worked. Beyond the plan period there may be greater recreational benefits of option 1 as a result of the restoration of more sites.
Local Economy, Employment and Housing	1	2	Option 1 is expected to plan for a greater amount of aggregate compared to option 2 and therefore would provide more support to the aggregates industry and construction market. The Three Cities Growth Area (growth centred on Nottingham, Leicester and Derby) is expected to result in increased demand for Derby and Derbyshire's aggregates over the plan period to deliver housing and economic development. The annual apportionment based upon recent sales may not provide for the future need as the recent economic downturn has suppressed sales. Significant positive effects are therefore expected in the long term under option 1.

Summary

Both options would generate effects in the medium to long term as this would affect the plan period between 2020 to 2030. Under option 1 a greater amount of aggregate compared to option 2 would be planned for as the national and regional guidelines for aggregates provision have a higher apportionment than recent sales figures. This could therefore result in more sites being worked with the potential for greater adverse impacts on the local environment and communities. The significance of these effects will depend on the locations of the specific sites needed to deliver either option.

With regards to achieving economic objectives, as Option 1 is expected to plan for a greater amount of aggregate compared to option 2 it could therefore provide more support to the aggregates industry and construction market in relation to house building and economic development particularly given the growth forecast within the County. The annual apportionment based upon recent sales may not provide for the future need as the recent economic downturn has suppressed sales. Significant positive effects on the economy are therefore expected in the long term under option 1.

12 ISSUE 7 MEETING THE NEED FOR BUILDING STONE

12.1.1 The table below presents the appraisal findings in relation to the options presented for meeting the need for building stone.

What approach should be taken to meet the need for building stone? **Option 1: Identify specific quarries or extensions to existing quarries to provide sources of building and roofing stone for certain buildings or settlements.** **Option 2: Devise a general policy, which allows for the extraction of building stone at sites where particular criteria are met.**			
SA Topic	**Rank of preference**		**Discussion of significant effects (and discussion of relative merits in more general terms)**
	Option 1	**Option 2**	
Biodiversity, Flora and Fauna	**?**	**?**	The effects of both options on biodiversity, flora and fauna will depend on the number and locations of the specific sites and their extensions identified under option 1 and the particular criteria proposed under option 2. Ranking the preference of options has therefore not been possible.
Land and Water Resources (incorporating waste and minerals)	**1**	**?**	Option 1 is expected to help to conserve natural resources by limiting the need for new building stone extraction to specific quarries or extensions to existing quarries which provide sources of stone for certain buildings or settlements informed by a study by English Heritage. For option 2, it will depend on what particular criteria are put forward as to how this performs.
Heritage and Landscape	**1**	**2**	Option 1 would provide certainty to meet specific needs to support the character of buildings and settlements in Derbyshire and beyond reliant on the types of building stone found in Derbyshire. Effects of this option could therefore secure benefits in terms of local distinctiveness in the County. Some of the building stone resources are located close to the Peak District National Park and therefore there is potential for extensions to existing sites and proposals coming forward under option 2 to have negative effects upon its setting. However promoting extensions to existing sites could also assist with securing restoration of existing sites. The significance of the effects of both options on landscape will depend on the specific locations of the specific sites and their extensions identified under option 1 and the criteria proposed under option 2.
Air Quality and Transport	**?**	**?**	Effects on this topic are uncertain as they will depend on locations of the specific sites and their extensions identified under option 1 and the particular criteria proposed under option 2 including whether there would be opportunities for sustainable modes of transport. Ranking the preference of options has therefore not been possible.
Climatic Factors, Energy and Flooding	**?**	**?**	Both options could involve the working of sites which could be vulnerable to flooding or may result in increased flood risk. Effects upon these objectives are however uncertain and will depend on locations of the specific sites and their extensions identified under option

			1 and the particular criteria proposed under option 2. Ranking the preference of options has therefore not been possible.
Communities and Health	?	?	Both options could involve the working of sites which could result in potentially negative effects upon amenity resulting from the creation of dust and the transportation of material. The effects on this topic are however uncertain at this stage as they will depend on locations of the specific sites and their extensions identified under option 1 and the particular criteria proposed under option 2. Ranking the preference of options has therefore not been possible.
Local Economy, Employment and Housing	?	?	Option 1 would meet a particular market need but may not provide flexibility for the industry to bring forward proposals to respond to market demand over the plan period or from other operators which do not have existing building stone quarries. This could have potentially negative effects upon the local building stone industry. The effects of option 2 will depend on the particular criteria proposed to determine applications. Ranking the preference of options has therefore not been possible.

Summary

With regards to achieving objectives relating to biodiversity, flora and fauna; air quality and transport; climatic factors, energy and flooding; and communities and health, information regarding the implementation of both options is somewhat limited and therefore effects are uncertain at this stage as they will depend on the locations of specific sites and extensions to existing sites under option 1 and the particular criteria proposed under option 2.

Option 1 would provide certainty to meet specific needs to support the character of buildings and settlements reliant on the types of building stone found in Derbyshire. Effects of this option could therefore secure benefits in terms of local distinctiveness for the County. Some of the building stone resources are located close to the Peak District National Park and therefore there is potential for extensions to existing sites and proposals coming forward under option 2 to have negative effects upon its setting. However promoting extensions to existing sites could also assist with securing restoration of existing sites. The significance of the effects of both options on heritage and landscape will depend on the specific locations of the specific sites and their extensions identified under option 1 and the criteria proposed under option 2.

Option 1 may not maximise its support to the building stone industry and therefore have negative effects on the achievement of economic objectives. This would meet a particular market need but may not provide flexibility for the industry to bring forward proposals to respond to market demand over the plan period or from other operators which do not have existing building stone quarries.

13 ISSUE 14 REWORKING SPOIL TIPS FOR SECONDARY AGGREGATES

13.1.1 The table below presents the appraisal findings in relation to the options presented for reworking spoil tips for secondary aggregates.

Option 1: Criteria based policy relating to reworking of spoil tips for secondary aggregates

Option 2: Identify specific sites where these products can be worked

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
	Option 1	Option 2	
Biodiversity, Flora and Fauna	?	?	The Council has identified that spoil tips related to industrial purposes or former collieries are likely to have re-vegetated and therefore both options have the potential to result in the disturbance and loss of vegetated land which may have biodiversity value in terms of the species and habitat it provides. The effects under both options are uncertain at this stage as option 1 will depend on the criteria proposed to protect biodiversity and for option 2, the site selection criteria employed to identify specific sites. Ranking the preference of options has therefore not been possible.
Land and Water Resources (incorporating waste and minerals)	1	1	Both options would promote the production and use of secondary aggregate rather than the extraction of primary aggregate, which is expected to help to conserve natural resources. There may also be opportunities through reworking these tips and appropriate restoration to reduce pollution from historic sites which were created prior to regulatory systems being in place. The significance of these effects on this topic are however uncertain as they will depend on the criteria proposed under option 1 and sites that come forward and the location of sites identified under option 2.
Heritage and Landscape	1	1	Both options would promote the production and use of secondary aggregate rather than the extraction of primary aggregate, which could potentially reduce the disturbance of the local landscape and provide opportunities in the longer term to enhance the landscape at these locations where, due to the historic legacy of such sites prior to regulatory systems being in place, spoil sites have not been in keeping with the local landscape. The significance of effects on this topic are however uncertain as they will depend on the criteria proposed under option 1 and the site selection criteria used and subsequent sites identified under option 2.
Air Quality and Transport	?	?	Both options could involve the working of sites, which could result in potentially negative effects upon air quality resulting from dust and transportation of material. Effects on this topic from both options are however uncertain as they will depend on the criteria proposed under option 1 and proposals that come forward, the location of sites identified under option 2 and whether there

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
			would be opportunities for sustainable modes of transport . Ranking the preference of options has therefore not been possible.
Climatic Factors, Energy and Flooding	?	?	Both options could involve the working of sites which could be vulnerable to flooding or may result in increased flood risk. At this stage this is uncertain and effects on this topic will depend on the criteria proposed under option 1 and sites identified under option 2. Ranking the preference of options has therefore not been possible.
Communities and Health	?	?	Both options could involve the working of sites which could result in potentially negative effects upon local communities resulting from dust and transportation of material. In addition, these sites may currently be areas of recreation which would be lost in the short to medium term. Working of these sites may however in the longer term provide recreational opportunities. The effects on this topic are however uncertain at this stage as they will depend on the criteria proposed under option 1 and how these are applied to proposals brought forward and the sites identified under option 2. Ranking the preference of options has therefore not been possible.
Local Economy, Employment and Housing	1	2	A criteria based policy approach under option 1 is likely to provide more flexibility for the industry to bring forward sites when required and determine the economic viability of sources of spoil sites throughout the plan period. This approach may also allow for more secondary aggregate to be extracted compared to option 2. Option 2 would however provide more certainty for certain spoil tip operators to bring proposals forward. The significance of effects on this topic are however uncertain as they will depend on how stringent the criteria proposed under option 1 are and the number of sites identified under option 2.
Summary			
Overall, both options could perform similarly in terms of achieving environmental and social objectives. They have the potential to result in opportunities to enhance the landscape and recreational uses at these spoil tip sites and reduce the need to extract primary aggregate. Both options also have the potential to result in loss or disturbance of biodiversity and potential impacts on amenity, air quality and transport. These effects and their significance are however uncertain and will depend on the strength of criteria proposed under option 1, the sites identified for option 2 and the proposals brought forward. With regards to effects on the local economy option 2 would provide more certainty for certain spoil tip operators to bring proposals forward. Option 1 is likely to provide more flexibility for the industry to bring forward sites when required and determine the economic viability of sources of spoil sites throughout the plan period. This approach may also allow for more secondary aggregate to be extracted compared to option 2. Allocating specific sites may also allow for better control over strategic environmental impacts. Whilst a criteria based policy would allow for impacts to be mitigated on a site by site basis, it may not deal with cumulative impacts as well.			

14 ISSUE 17 REDUCING THE LANDBANK OF CRUSHED ROCK IN DERBYSHIRE

14.1.1 The table below presents the appraisal findings in relation to the options presented for reducing the landbank of crushed rock in Derbyshire.

What would be the best approach to reduce the landbank for crushed rock in Derbyshire:

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

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

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
	Option 1	Option 2	
Biodiversity, Flora and Fauna	2	1	Both options could help to avoid the potential for intensification of extraction should new permissions be granted and existing permissions also be worked and potentially reduce the areas permitted for working overall as operators would need to relinquish reserves of a greater amount. This could therefore help to avoid potential negative effects upon conserving biodiversity. Also new sites proposed may be more favourable in terms of biodiversity impacts than currently permitted sites. These effects will depend on where reserves are relinquished and new permissions located. Option 2 is expected to perform better than option 1 by reducing permitted extraction in the Peak District National Park therefore assisting with the delivery of the Park's objectives which include maintaining existing areas of biodiversity habitat.
Land and Water Resources (incorporating waste and minerals)	1	1	Both options could help to avoid the potential for intensification of extraction should new permissions be granted and existing permissions also be worked and potentially reduce the areas permitted for working overall as operators would need to relinquish reserves of a greater amount. Negative effects resulting from the loss of soil potentially needing to removed to work sites, and also impacts on water quality from extraction are likely to be reduced overall. Although both options would reduce the land bank this is not expected to be less than what is required as part of the apportionment to be provided set out in the national and regional guidelines for aggregates provision and both options would still grant new permissions where these are applied for, therefore still encouraging minerals extraction where this is needed.
Heritage and Landscape	2	1	Both options would assist in reducing the potential for intensification of extraction should new permissions be granted and existing permissions also be worked and potentially reduce the areas permitted for working overall as operators would need to relinquish reserves of a greater amount. This would therefore help to avoid potential negative effects upon the local landscape. These effects will depend on where reserves are relinquished and new permissions located.

			Option 2 is expected to perform better than option 1 by reducing permitted extraction in the Peak District National Park therefore assisting with the delivery of the Park's objectives which include protecting its landscapes.
Air Quality and Transport	1	1	Both options would assist in reducing the potential for intensification of extraction should new permissions be granted and existing permissions also be worked and potentially reduce the areas permitted for working overall as operators would need to relinquish reserves of a greater amount. This could reduce potential negative effects upon air quality resulting from working these sites. These effects will depend on where reserves are relinquished and new permissions located.
Climatic Factors, Energy and Flooding	1	1	Effects upon biodiversity discussed above could indirectly assist with climate change mitigation and managing flood risk. These effects will depend on where reserves are relinquished and new permissions located.
Communities and Health	2	1	Effects upon biodiversity discussed above could conserve areas of biodiversity which are also be used for recreation. These effects will depend on where reserves are relinquished and new permissions located. Option 2 is expected to perform better than option 1 by reducing permitted extraction in the Peak District National Park which is used for recreation can indirectly help to maintain and improve the health of local communities.
Local Economy, Employment and Housing	1	1	In April 2010 the landbank based on the annual apportionment from national and regional guidelines for aggregates provision was 95 years. Proposals under both options would reduce the overall land bank for crushed rock however this is not expected to result in provision for less than what is required as part of the apportionment set out in the national and regional guidelines for aggregates provision and both options would still grant new permissions where these are applied for therefore still encouraging minerals extraction where this is needed. This would also help to maintain the important role the extraction of this aggregate plays in national supplies as Derbyshire has the second highest annual output of limestone in England.

Summary

Both options would assist in reducing the potential for intensification of extraction should new permissions be granted and existing permissions also be worked and potentially reduce the areas permitted for working overall as operators would need to relinquish reserves of a greater amount. This could reduce potential negative effects in relation to achieving environmental and social objectives. Option 2 is expected to perform better than option 1 in terms of achieving environmental and social objectives by reducing permitted extraction in the Peak District National Park and therefore assist in the delivery of the Park's objectives and also maintain potential recreational areas for Derby and Derbyshire's communities.

In terms of meeting economic objectives, both options would reduce the overall land bank for crushed rock however this is not expected to result in provision for less than what is required as part of the apportionment set out in the national and regional guidelines for aggregates provision and both options would still grant new permissions where these are applied for therefore still encouraging minerals extraction where this is needed. This would also help to maintain the important role the extraction of this aggregate plays in national supplies as Derbyshire has the second highest annual output of limestone in England.

15 ISSUE 18 SHOULD THERE BE A STRATEGIC SCHEME FOR THE RESTORATION OF SAND AND GRAVEL WORKINGS IN THE TRENT VALLEY AREA

15.1.1 The table below presents the appraisal findings in relation to the options presented for the restoration of sand and gravel workings in the Trent Valley area.

What approach should be taken to the restoration of mineral workings in the Trent Valley?

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

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

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
	Option 1	Option 2	
Biodiversity, Flora and Fauna	1	2	Option 1 is expected to result in medium to long term positive effects with regards to achieving this objective by providing a joined up approach to landscape management which could deliver a network of green infrastructure or water habitats where appropriate. The significance of effects on biodiversity will depend on the restoration proposed. Option 2 could also deliver some positive effects but option 1 is expected to provide wider and more integrated biodiversity enhancements. The significance of effects would depend on the criteria proposed and the local circumstances of each site.
Land and Water Resources (incorporating waste and minerals)	1	2	Both options could involve the restoration of sand and gravel sites which could be within sensitive groundwater areas and their proposed restoration may result in impacts on water quality. At this stage this is uncertain and effects on this topic will depend on the location of sites and criteria proposed under option 2. The strategic approach proposed under option 1 would provide a more joined up approach and could therefore provide an opportunity to consider this issue.
Heritage and Landscape	1	2	Option 1 is expected to result in significant positive effects upon the Trent Valley local landscape by providing a joined up approach to landscape management in the area and the potential to ensure a particular standard is met for all sites in terms of management and after care. These effects are therefore expected to occur in the medium to long term as existing quarries will continue to be worked throughout the plan period. Option 2 could still deliver some positive effects but the significance of effects would depend on the criteria proposed and the local circumstances of each site.
Air Quality and Transport	-	-	The options are not expected to have effects in relation to achieving this objective.
Climatic Factors, Energy and Flooding	1	2	Both options could involve the restoration of sand and gravel sites which are likely to be vulnerable to flooding or the proposed restoration may result in increased flood risk. At this stage this is uncertain and effects on this topic will depend on the location of sites and criteria proposed under

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
			option 2. The strategic approach proposed under option 1 would provide a more joined up approach and could therefore provide an opportunity to consider this issue across the valley catchment
Communities and Health	1	2	Option 1 could indirectly provide a network of green infrastructure and therefore opportunities for recreational facilities for the local community. The significance of effects will depend upon the specific details of the landscape strategy with respect to the types of restoration as this could be to other uses such as agricultural land. Option 2 could deliver some positive effects but the significance of effects would depend on the criteria proposed and the local circumstances of each site.
Local Economy, Employment and Housing	1	2	Compared to option 2, option 1 provides more certainty to the minerals industry with regards to the standard of restoration and after care expected and could also guide the allocation of sand and gravel sites. It could provide, in the longer term, opportunities for recreational related businesses but this will depend on the types of restoration proposed.
Summary			
Significant positive effects in the medium to long term are expected upon the Trent Valley local landscape under option 1 as it would provide a joined up approach to landscape management in the area and the potential to ensure a particular standard is met for all sites in terms of management and after care, providing certainty to the minerals industry. Compared to option 2, option 1 is therefore expected to perform better with regards to achieving objectives related to heritage and landscape, biodiversity flora and fauna, land and water resources, communities and health and the local economy.			

16 ISSUE 19 SHOULD THERE BE A STRATEGIC SCHEME FOR THE RESTORATION OF QUARRIES ALONG THE A515 CORRIDOR, BUXTON

16.1.1 The table below presents the appraisal findings in relation to the options presented for the restoration of quarries along the A515 corridor, Buxton.

What approach should be taken to the restoration of mineral workings along the A515 Corridor, Buxton?

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

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

SA Topic	Rank of preference		Discussion of significant effects (and discussion of relative merits in more general terms)
	Option 1	Option 2	
Biodiversity, Flora and Fauna	1	2	For option 1 positive effects are expected upon biodiversity as this option would result in a long term landscape strategy for the A515 corridor and could therefore deliver a network of green infrastructure and potential enhancement of biodiversity in this area. The significance of effects will depend on the restoration proposed. Option 2 could also deliver some positive effects but option 1 is expected to provide wider and more integrated biodiversity enhancements. The significance of effects for this option would depend on the criteria proposed and the local circumstances of each site. Effects under both options will also depend on when restoration of these sites take place which is unknown.
Land and Water Resources (incorporating waste and minerals)	-	-	The options are not expected to have effects in relation to achieving this objective.
Heritage and Landscape	1	2	Option 1 could result in significant positive effects upon the local landscape and potentially indirect positive effects on the setting of the nearby Peak District National Park by providing a joined up approach to landscape management in the area and the potential to ensure a particular standard is met for all sites in terms of management and after care. Option 2 could still deliver some positive effects but the significance of effects would depend on the criteria proposed and the local circumstances of each site. Under both options effects will also depend on when restoration of these sites might take place which is unknown.
Air Quality	-	-	The options are not expected to have effects in relation to achieving this

and Transport			objective.
Climatic Factors, Energy and Flooding	-	-	The options are not expected to have effects in relation to achieving this objective.
Communities and Health	1	2	Option 1 could indirectly provide a network of green infrastructure and therefore opportunities for recreational facilities for the local community. The significance of effects will depend upon the specific details of the landscape strategy with respect to the types of restoration as this could be to other uses such as agricultural land. Option 2 could deliver some positive effects but the significance of effects would depend on the criteria proposed and the local circumstances of each site. Effects under both options will also depend on when restoration of these sites take place which is unknown.
Local Economy, Employment and Housing	1	2	Compared to option 2, option 1 provides more certainty to the minerals industry with regards to the standard of restoration and after care expected. It could provide opportunities for recreational related businesses but this will depend on the types of restoration proposed and when sites are likely to be restored.
Summary			
Overall, option 1 is expected to perform better with regards to achieving objectives related to heritage and landscape, biodiversity flora and fauna, land and water resources, communities and health and the local economy by providing a strategic landscape management scheme for this area. In particular significant positive effects upon the local landscape along this corridor and potentially indirect positive effects on the setting of the nearby Peak District National Park are expected under option 1 as it will ensure a particular standard is met for all sites in terms of management and after care and this will also provide certainty to the minerals industry. These effects are somewhat uncertain as it will depend on the types of restoration proposed and when sites are expected to be restored which is unknown.			

17 SA COMMENTARY ON EMERGING APPROACHES

17.1.1 The Minerals Issue and Options document (2010), presented a number of issues to which no alternatives were identified. For these issues, a 'suggested approach' was established instead. This is acceptable, as it is not always possible or useful to explore different approaches were no reasonable alternatives are considered to exist.

17.1.2 However, undertaking a 'check' of these suggested/emerging approaches against the sustainability appraisal objectives can still be useful. Not only does it help to identify sustainability issues early in the plan-making process, but it can flag-up were reasonable alternatives may exist but have been overlooked.

17.1.3 The table below provides a high-level appraisal of the suggested approaches outlined in the Issues and Options documents (i.e. those were no alternatives were identified).

17.1.4 The broad effects of each approach have been illustrated using one of the following symbols.

⇩ Overall negative implications ⇧ Overall positive implications ⇔ Negligible implications

? Uncertainty (potentially negative)

Issue	Biodiversity, Flora and Fauna	Land and Water Resources	Waste and Minerals	Heritage and Landscape	Air quality and Transport	Climatic Factors, Energy and Flooding	Communities and Health	Local Economy, Employment and Housing
1b	⇧	⇧	⇔	⇧	⇧	⇧⇩	⇧	⇩
Summary: Reducing the proportion of crushed rock, sand and gravel in Derbyshire would lead to fewer impacts on environmental aspects such as landscape, natural resources and biodiversity. There would also be less internal vehicle movements and fewer potential impacts on amenity. However, the reduced apportionment could have a small impact on local employment in that sector. Local demand for aggregates may also need to be met from outside the County, which could lead to an increase in carbon emissions. Conversely, a reduction in minerals workings would reduce carbon emissions within Derbyshire.								
2	⇧⇩	⇧⇩	⇧	⇧⇩	⇔	⇔	⇔	⇧
Summary: Allocating extensions to existing sites rather than finding new extraction sites could put additional pressure on the environments within which current facilities are located. However, it would help to negate environmental impacts in other parts of Derbyshire. It would also prevent the need to identify alternative sources of supply; helping to reduce barriers/costs to extraction. Expanding existing sites also helps to retain employment over a longer period of time for communities that currently rely upon these opportunities.								
3	⇔	⇔	⇔?	⇔	⇔	⇔	⇔	⇔?
Summary: A criteria based policy would have much the same impact as the current saved policies, so there would be negligible impacts on the baseline position. However, it may be beneficial to allocate likely areas for extraction of minerals of national importance. This would ensure that there is certainty about supply well in advance. It is important for industrial minerals where high investment is required to process the mineral, an approach which doesn't include the option of allocating sites may potentially affect the supply of the minerals, which could have a negative impact on the economy. These impacts are uncertain.								
4	⇧	⇧	⇔	⇧	⇔	⇧⇩	⇔	⇔

Issue	Biodiversity, Flora and Fauna	Land and Water Resources	Waste and Minerals	Heritage and Landscape	Air quality and Transport	Climatic Factors, Energy and Flooding	Communities and Health	Local Economy, Employment and Housing
Summary: Given the lack of technical information, a criteria based policy should be adequate to prevent sterilisation of surface coal reserves. Coal resources should be safeguarded. However, in terms of climate change, it is desirable to encourage the use of alternative sources of fuel, so allocating sites would not be attractive in this respect as it pre-empts the use of coal. Having regard to environmental constraints would have positive implications for biodiversity, landscape and natural resources.								
5	⇧	⇧	⇧	⇧	⇧	⇧	⇧	⇧
Summary: Designating surface constraint areas would help to protect areas identified as the most sensitive to development. This would have positive implications for biodiversity, heritage, landscape and natural resources. However, a lack of detailed information about the extent of constraints could mean that non-designated areas with 'unknown constraints' were more vulnerable to developments. This is more likely to be an issue for biodiversity and natural resources where further studies are often required to establish sensitivity. Identifying constraints areas is useful for the minerals industry as it provides clarity on where development would be unacceptable. This helps to reduce the risk of unsuccessful applications.								
6	⇧	⇧	⇧	⇧	⇔	⇔	⇔	⇔
Summary: Restricting the use of stone to building and roofing uses will help to control the scale and impact of workings on sensitive environmental features. It will also help to ensure that a shortage of supply does not occur due to stone being used for purposes where less scarce alternatives could be used. Allowing exports of stone to be included in permissions would be beneficial to this industry.								
8	⇧	⇧	⇔⇩	⇧	⇔	⇔	⇧	⇔
Summary: The suggested approach is in-line with the current Minerals Local Plan. Therefore, the impacts of including a similar policy in the new Local Plan would have a negligible impact on the baseline position. However, in terms of the merits of this approach, there would be positive implications for landscape, biodiversity, natural resources and local communities. However, restrictions on the working and stockpiling of clays could make extraction less efficient.								
9	⇧	⇧	⇔	⇧	⇔	⇔	⇔	⇔
Summary: The suggested approach would have positive implications for landscape, geodiversity, biodiversity and natural resources. However, given that it can be difficult to find suitable sites for vein minerals extraction and demand fluctuates widely - it may be appropriate to allow development without the *need to demonstrate* there is demand for the mineral. Scale and methods of working could still be included in a criteria-based policy.								
10	⇧	⇧	⇔	⇧	⇔	⇔	⇔	⇔
Summary: The suggested approach would have a similar affect to the current minerals local plan. Therefore, impacts on the baseline would be negligible. However, the policy is inherently positive as it helps to minimise the environmental impacts of oil l and gas extraction. Allowing oil and gas extraction is inherently negative in terms of the greenhouse gas emissions combustion of these fuels would have. However, this is not something the plan should control.								
11	⇧	⇧	⇔	⇧	⇔	⇔	⇔	⇔
Summary: The suggested approach would have a similar affect to the current minerals local plan. Therefore, impacts on the baseline would be negligible. However, the policy is inherently positive as it helps to minimise the environmental impacts of new coal exploration technologies. Allowing coal extraction is inherently negative in terms of the greenhouse gas emissions combustion of this fuel would have. However, this is not something the plan should control.								
12	⇧	⇧	⇔	⇧	⇧	⇧	⇔	⇔
Summary: Given the landbank of aggregates, it is unlikely that this policy would have an effect on Derbyshire. However, easing pressure on the Peak District would have a positive effect on the landscapes, biodiversity and natural resources in that area. Given that a large proportion of the aggregates produced in the Peak District go to markets in Derbyshire, this would also help to reduce transport and associated social impacts, pollution and emissions.								

Issue	Biodiversity, Flora and Fauna	Land and Water Resources	Waste and Minerals	Heritage and Landscape	Air quality and Transport	Climatic Factors, Energy and Flooding	Communities and Health	Local Economy, Employment and Housing
13	⇔	⇔	⇔	⇔	⇔	⇔	⇔	⇔
Summary: Determining which Plan is best placed to deal with Safeguarded sites for Recycled Aggregates is a procedural issue.								
15/16	⇔	⇔	⇧	⇔	⇔	⇧	⇧	⇧⇩
Summary: There is a need to include a policy to safeguard minerals. The proposed approach would have positive implications by ensuring a steady supply of minerals for economic development. It would also help to ensure that the need for mineral imports was minimised, which would reduce carbon emissions. However, it may restrict certain developments that are not considered 'critical'. This could affect local housing targets perhaps. The nature and extent of impacts would depend upon what development is considered to be 'essential'. The policy also could be made more flexible by offering different levels of protection according to the scarcity of mineral resources and where the cumulative impacts of previous developments could lead to an unacceptable loss of resources.								

18 SA COMMENTARY ON THE DRAFT VISION AND STRATEGIC OBJECTIVES

18.1.1 The draft Minerals Plan vision and objectives are very broad and therefore it is difficult to determine what impact there would be on environmental, economic and social factors. However, a quick check of the draft Plan vision and objectives against the SA objectives can help to identify if there are potential conflicts or if key issues have not been tackled.

SA commentary on the draft Vision

The draft vision supports a number of sustainability objectives. There is a clear aim to achieve a suitable balance between economic, social and environmental impacts. There is a particular focus on achieving positive outcomes for communities, with a specific reference to deprived areas. This is positive in terms of improving health and wellbeing.

However, the aim to create jobs 'especially' in areas of deprivation implies that the location of workings and facilities will be close to urban areas. This indirectly rules out some locations in rural areas that may be suitable for other reasons.

Addressing the contribution towards and adaptation to climate change impacts is a positive aspect of the vision. Achieving sustainable modes of transport is also comprehensively discussed. There is no reference to the need to reduce energy and water use in minerals workings, however, the objectives build upon the vision and do consider this issue (see below).

18.1.2 Logically, the objectives follow on from the vision but provide additional detail. The table below illustrates where the draft Plan objectives would help to support the SA objectives (⇧), where there may be a potential conflict (**?**) and where there is a negligible effect anticipated (⇔). Where no effect is anticipated this could highlight opportunities for the Minerals Plan to widen the scope of its objectives.

18.1.3 It should be remembered that plan objectives have the potential to conflict with one another as they often reflect different aspects of sustainability (economic / social / environmental). This does not mean that objectives are inappropriate. The aim of plan making and SA is to achieve the most appropriate balance between these different objectives so as to achieve sustainable development.

Obj .	Biodiversity , Flora and Fauna	Land and Water Resources	Waste and Minerals	Heritage and Landscape	Air quality and Transport	Climatic Factors, Energy and Flooding	Community and Health	Local Economy, Employment and Housing
A	?	?	⇧	?	?	?	⇧	⇧
B	⇧	⇧	⇧	⇧	⇧	⇧	⇧	⇧
C	⇔	⇔	⇔	⇧	⇧	⇧	⇔	⇧
D	⇧	⇔	⇔	⇧	⇔	⇔	⇔	⇔
E	⇧	⇧	⇧	⇧	⇧	⇧	⇧	⇧
F	⇔	⇔	⇧	⇔	⇔	⇔	⇔	⇧?
G	⇧	⇧	⇔	⇧	⇔	⇔	⇔	⇔
H	⇔	⇔	?	⇔	⇔	⇔	⇧	⇔
I	⇔	⇧	⇧	⇔	⇧	⇧	⇧	⇧
J	⇔	⇔	⇧	⇔	⇧	⇧	⇧	⇧
K	⇧	⇧	⇔	⇧	⇔	⇔	⇧	⇔

Commentary

18.1.4 Providing a sufficient supply of minerals could well mean that sensitive landscapes and habitats are affected. Therefore, objective A is potentially in conflict with SA objectives that seek to protect the environment. However, impacts could be avoided or mitigated and further stages of SA should deal with such issues. The draft plan objective D also aims to protect the environment from the impacts of minerals development.

18.1.5 Objectives H and C could conflict with waste and minerals SA objectives, as certain locations containing resources may be deemed inappropriate on the grounds of social and environmental impacts. This is the challenge of minerals planning though.

18.1.6 Objective I seeks to mitigate against climate change and objective J seeks to ensure that new infrastructure allows for sustainable means of transporting minerals. These are both positive in terms of reducing greenhouse gas emissions from development. However, there is no direct vision to locate minerals sites in locations that would reduce the need to travel. This may be due to the fact the location of minerals workings is heavily influenced by where the resources are available. However, ensuring that sites are as accessible as possible to workers and the markets they serve should be an aspiration for the Local Plan.

18.1.7 Minimising air quality issues and congestion could also be mentioned explicitly in the objectives, although it could be argued that objective G '*to protect local communities form the impacts of minerals development'* already covers these issues.

18.1.8 Mining operations can use significant amounts of water for washing and can impact upon the quality of water resources. Objective H should therefore include reference to water efficiency as well as energy efficiency.

18.1.9 Although objective C refers to '*protecting the quality of the natural environment',* there could be a stronger emphasis on reducing pollution to water courses, land and air quality and flooding as a result of minerals workings.

18.1.10 Objective K would support environmental SA objectives. During periods of economic

downturn in particular, some workings may be closed down or mothballed. It will be important to help support the reinstatement of these workings when conditions are more favourable.

PART 4: WHAT ARE THE NEXT STEPS (INCLUDING MONITORING)?

20 INTRODUCTION (TO PART 4)

20.1.1 This Part of the report explains next steps that will be taken as part of plan-making / SA.

21 NEXT STEPS

21.1.1 Subsequent to the current consultation it is the Council's intention to prepare the Submission version of the plan.

21.1.2 Preparation of the Submission version of the Mineral Local Plan will be informed by the findings of the SA as well as evidence and representations made through consultation.

21.1.3 **The SA Report** (as opposed to an Interim SA Report) will be published alongside the Submission Minerals Local Plan. It will provide all of the information required by the Regulations. Table 19.1 compares the information that will be presented within the SA Report to that which is presented in this Interim SA Report.

Table 19.1: Information contained within this Interim SA Report vs. the forthcoming SA Report

Part / SA Question	This Interim SA Report	The SA Report
Part 1: What's the scope of the SA?	• The Scope of the SA; summarised as appropriate with a view to ensuring conciseness.	
Part 2: What has plan-making / SA involved up to this point?	• Outline reasons for having selected the issues / alternatives / site options that are a focus of appraisal at the current time.	• Outline reasons for having selected the issues / alternatives / site options that were ('reasonably') a focus of interim SA. • Interim appraisal findings. • i.e. appraisal findings from Part 3 of this Interim SA Report, plus appraisal findings from any other interim appraisal undertaken between now and the Proposed Submission Plan being finalised. • Outline reasons for having selected preferred options (i.e. the Minerals Local Plan approach) and rejected other options; in-light of interim appraisal findings.
Part 3: What are the SA findings at this stage?	• Interim appraisal findings.	• An appraisal of the draft plan approach
Part 4: What are the next steps (including monitoring)?	• A general discussion of what happens next.	• A general discussion of what happens next, and a section specifying 'measures envisaged concerning monitoring'

APPENDIX I: SUSTAINABILITY APPRAISAL FRAMEWORK

Sustainability Objectives There is a need…..	To what extent will the plan….	Possible Indicators
1. To protect, maintain and improve the health and well being of Derby and Derbyshire's people and communities Covers SEA Directive topics: - Human Health	- Protect and improve leisure, and recreation opportunities (e.g. through site restoration, improved access to open space or improvements to the PROW system) or access to other services or facilities (such as waste management and recycling facilities)? - Improve the amenity of local communities (recognising the legacy of impacts on some communities from the winning of minerals)? - Address impacts on local amenity including traffic congestion, road safety, noise, dust, vibration, light, vermin and odour? - Disproportionately affect vulnerable groups and deprived communities?	No. of sites within 250m of sensitive receptors (settlements) People killed or seriously injured in road traffic accidents related to HGVs/ close to mineral sites Healthy life expectancy at age 65
2. To protect, maintain and enhance biodiversity and geodiversity in Derby and Derbyshire, ensuring no net loss of important sites, habitats or species. Covers SEA Directive topics: - Biodiversity - Flora - Fauna	- Safeguard, and avoid detrimental impacts to sites and features of wildlife or geological/geomorphological importance? - Provide opportunities for the creation or enhancement of wildlife habitats, corridors or linking routes in Derby and Derbyshire? - Protect and conserve geological areas of significant scientific, historical, educational or heritage value? - Assist to restore the full range of characteristic habitats and species in the BAP to viable levels?	No. of Designated sites, BAP habitats and species adversely affected by minerals/waste development Protected species loosing or gaining 'Favourable Conservation Status' as a result of minerals/waste development No. of permitted applications for mineral or waste development that includes a restoration scheme that contributes to the creation/enhancement/protection of priority habitats No. of permitted applications for waste or minerals development within 1km of designated or locally important sites for nature conservation or geological purposes.

Sustainability Objectives There is a need…..	To what extent will the plan….	Possible Indicators
3. To protect, conserve and enhance, air, water and soil quality, minimise light and noise pollution and land instability. Covers SEA Directive topics: - Water - Air	- Avoid or minimise all forms of air, noise, soil and light pollution (including dust, odour, emissions to air and vibration) particularly in areas already below established quality standards? - Protect, conserve and enhance ground and surface water, including from pollution, over-extraction and disruption to hydrological systems? - Minimise the loss of the most valuable soils and improve soil quality? - Reduce any issues of land instability, contamination, or any other impacts on land arising from the legacy of winning of minerals? - Affect an Air Quality Management Area?	No. of sites affecting SPZs of major aquifers (within 200m) No. of sites close to (within 200m) watercourses Number of complaints on dust or odour relating to minerals or waste developments
4. To protect, conserve and enhance the quality, local distinctiveness and enjoyment of Derby and Derbyshire's diverse landscapes, green infrastructure, townscape character, and cultural heritage. Covers SEA Directive topics: - Cultural Heritage - Landscape	- Protect and conserve Derby and Derbyshire's diverse landscape character and distinctiveness, minimise adverse effects on these and ensure quality designs? - Conserve and enhance Derby and Derbyshire's cultural assets, (including archaeological heritage) locally distinctive built environment, historic architecture and heritage sites and townscape features including their setting? - Facilitate the supply and use/reuse of local building material to protect and enhance locally distinctive landscape and townscape character? - Impact on maintaining the extent, openness and quality of the Green Belt?	No. of restored disused quarries No. of permitted applications close to 1km or within landscape designations No. of permitted applications affecting archaeological resources
5. To minimise traffic levels, journey lengths, the number of road traffic	- Minimise the number and length of journeys for the transportation of minerals and waste and minimise other journeys associated with these developments in line with the proximity principle?	Distances travelled by road for minerals or waste Proportion of aggregates or waste arisings transported

Sustainability Objectives There is a need…..	To what extent will the plan….	Possible Indicators
related accidents, and to encourage sustainable forms of transport in Derby and Derbyshire.	- Reduce reliance on road movements of minerals and waste and seek to increase the efficient use of conveyors, rail, water and back loading where appropriate? - Protect and where possible improve the quality and scale of appropriate parts of the road network and transport infrastructure, including footpaths, bridleways and cycle paths? - Protect and where possible improve road safety? - Reduce congestion on local transport networks?	by rail or water Average distances travelled for mineral supply and waste management No. of waste/minerals sites with rail access/use No. of waste/mineral sites with easy access to the strategic road network
6. To reduce contributions to climate change, by reducing greenhouse gas emissions, promoting efficient energy use, and encouraging the use of renewable energy	- Minimise and where possible reduce greenhouse gas emissions? (for example by using rail or water-based access, reducing distances travelled by road, increasing backloading where appropriate) - Encourage the use of renewable energy sources or contribute to the production of renewable energy including energy from waste? - Minimise energy consumption or increase energy efficiency? - Provide a facility/service that serves local needs or is well located in relation to the strategic road network? - Will the operation be well located in relation to the surrounding markets for minerals and settlements for waste?	Distances travelled by road for minerals or waste Proportion of aggregates or waste arisings transported by rail or water Average distances travelled for mineral supply and waste management No. of waste/minerals sites with rail access/use No. of waste/mineral sites with easy access to the strategic routes
7. To limit vulnerability to flooding, taking account of climate change Covers SEA Directive topics:	- Is the development with an area liable to flooding (e.g. Flood Zones 2 or 3)? - Increase the risk of flooding in this or other areas? - Make existing or future development more vulnerable to flood risk as a	No. of permitted sites for minerals/waste development within the floodplain

Sustainability Objectives There is a need…..	To what extent will the plan….	Possible Indicators
- Human Health - Water - Material Assets - Climatic Factors	result of climate change especially key services and facilities? - Assist with flood management, taking account of climate change?	
8. To achieve a more efficient use of natural resources and infrastructure ,minimise the production of waste and increase reuse, recycling and recovery of waste in Derby and Derbyshire. Covers SEA Directive topics: - Material Assets	- Assist or facilitate movement up the waste hierarchy, in all parts of the plan area? (i.e. reduce waste first, then reuse, recover, recycle and landfill as a last resort) (including the development of appropriate energy from waste facilities) - Assist in maximising the use of recycled and secondary materials (including aggregates)? - Reduce extraction of virgin materials? - Safeguard resources of significant exploitable minerals from sterilisation by other forms of development? - Require prior extraction if development that would sterilise mineral resources is to go ahead? - Minimise the loss of best and most versatile agricultural land and green field sites? - Bring forward and optimise the use of previously developed, vacant and derelict land and buildings? - Utilise, optimise and enhance existing infrastructure? - Ensure optimal, appropriate and beneficial restoration and maintenance of mineral sites after use? - Encourage the minerals sector to take responsibility for the waste	Residual Household Waste per Head Household Waste Recycled and Composted Percentage of Municipal Waste Landfilled

Sustainability Objectives There is a need…..	To what extent will the plan….	Possible Indicators
	associated with their operations? - Contribute to self-sufficiency in the management of waste arisings in Derby and Derbyshire? - Reduce the over supply of permissions for crushed rock in the plan area?	
9. To maximise the potential economic benefits of mineral operations and waste management to a sustainable economy in Derby and Derbyshire and other parts of the Country.	- Contribute to the adequate and steady supply of minerals or waste management facilities to meet the local area, region's and UK's need without affecting the ability of future generations to do the same? - Drive forward new innovative technologies? - Provide local training and employment opportunities in Derby and Derbyshire, especially for communities suffering high levels of unemployment and other deprivation? - Maximise the benefits of regeneration and inward investment of new business into the area, to broaden the economic base and reduce disparities and seek to minimise any effects of M&W development on regeneration and inward investment initiatives? - Safeguard and create employment in local business and contribute to the local economy? - Be deliverable, having regard to, for example: maturity of technology, market risks, costs?	Overall employment rate (working age) No of direct jobs created in the minerals/ waste management sector per year No of new minerals/waste permissions